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## Two hundred and ninety-third Meeting.

### March 16, 1847. — SPECIAL MEETING.

The PRESIDENT in the chair.

Professor Peirce communicated to the Academy the following notice of the computations of Mr. Sears C. Walker, who found that a star was missing in the *Histoire Céleste Française*, observed by Lalande on the 10th of May, 1795, near the path of the planet Neptune, at that date, which may possibly have been this planet.

"Shortly after the arrival of the news of the *physical* discovery of Neptune at Berlin, on a suggestion by Mr. E. C. Herrick of its probable identity with the Wartman planet of 1831, Mr. Walker engaged in the study of the orbit of the former, and soon concluded that they could not have been the same, and that no set of elements could be found, with a mean distance at all probable, which would represent the four places of Wartman's planet, as published in the *Comptes Rendus* for 1836.

"His first examination of the orbit of Neptune led to the presumption that the orbit is nearly circular. Also, the large planets lead by analogy to the same conclusion. The eccentricity of

| | | |
|---|---|---|
| Jupiter | is | 0.048 |
| Saturn | " | 0.056 |
| Uranus | " | 0.047 |
| Neptune | " | $< 0.060$, *conjectured.* |

"With a small eccentricity, it was impossible for the sun's mass at that distance to impress much daily variation of the radius vector. Accordingly, an approximate solution was made from the places observed on the 26th of September, 26th of October, and 21st of November, on the supposition of a constant radius vector. The concluded true sidereal orbital motions $n'$, $n$, and $n''$, together with the mean daily sidereal motion $\mu$, for the radius vector $r =$ the semi-axis major $= a$, are here given.

| $r$ | $n'$ First thirty days. | $n$ Average motion. | $n''$ Last 28 days. | $\mu$ |
|---|---|---|---|---|
| 34 | 12″.8 | 16″.7 | 19″.7 | 17″.90 |
| 33 | 14.6 | 17.7 | 20.3 | 18.71 |
| 32 | 16.6 | 18.8 | 20.8 | 19.60 |
| 31 | 19.4 | 20.1 | 21.2 | 20.56 |
| 30 | 21.7 | 21.6 | 21.6 | 21.58 |
| 29 | 24.1 | 23.4 | 22.0 | 22.67 |

" The most plausible value of $r$ from this table is that in which $(n - n')^2 + (n - n'')^2$ is a minimum. This value by the table is 30 nearly, and for this value we have very nearly $n = n' = n'' = \mu$. Hence the orbit comes out nearly a circle, unless we suppose the planet now to present the possible, but still improbable, case of a great eccentricity and true anomaly nearly 90°.

" Accordingly, he selected for the next trial the circular hypothesis, for which two places of the planet sufficed, those of the 26th of September, from the mean of nine European observations, and the 26th of December, from the mean of 33 transits and 11 measures in declination of Neptune (compared with the same two stars used in September) by himself with the Washington equatorial. All the small corrections were taken into account. In this manner he obtained Elements I. in the table below. These elements enabled him to compute an ephemeris of Neptune for the six months following August 1st, 1846, with which he compared one hundred and sixteen nights' works, seventy of the European and forty-six of the Washington Observatory, and derived from them sixteen normal places, which indicated the following corrections of the geocentric longitude computed from Elements I.

NORMAL PLACES OF NEPTUNE.

| No. of place. | $t$ Date, 1846 yrs. Mean Time, Greenwich. | $\alpha$ Obs. Geo. lon. | $hh$ No. of obs. | $\delta$ Obs. Geo. lat. | $h'h'$ No. of obs. | $\Delta\alpha$ Obs. — Eph. | $\Delta\delta$ Obs.—Eph. |
|---|---|---|---|---|---|---|---|
| | d. | ° ′ ″ | | ° ′ ″ | | ″ | ″ |
| 1 | 215.5670 | 327 9 49.34 | 1 | — 0 31 36.24 | 1 | — 16.75 | — 0.63 |
| 2 | 223.5441 | 326 57 9.04 | 1 | 44.09 | 1 | — 7.27 | — 1.03 |
| 3 | 270.5 | 325 46 25.82 | 16 | 57.99 | 16 | — 1.02 | + 0.84 |
| 4 | 276.5 | 39 54.23 | 13 | 56.14 | 13 | + 0.27 | + 1.51 |
| 5 | 282.5 | 34 16.11 | 13 | 56.09 | 13 | + 1.12 | + 0.03 |
| 6 | 290.5 | 28 21.99 | 12 | 53.16 | 12 | + 3.13 | + 0.80 |
| 7 | 298.5 | 24 25.25 | 18 | 51.13 | 19 | + 4.19 | + 0.56 |
| 8 | 306.5 | 22 32.46 | 6 | 47.61 | 6 | + 3.02 | + 0.23 |
| 9 | 313.5 | 22 40.00 | 4 | 45.15 | 3 | + 2.40 | — 0.68 |
| 10 | 319.5 | 24 6.40 | 4 | 41.51 | 6 | + 1.95 | + 0.51 |
| 11 | 325.5 | 26 50.59? | 4 | 37.30? | 4 | + 3.77? | + 2.21? |
| 12 | 334.5 | 33 9.44 | 7 | 33.92 | 6 | + 2.46 | — 1.13 |
| 13 | 345.5 | 44 26.93 | 4 | 30.79 | 4 | + 0.96 | — 0.03 |
| 14 | 353.5 | 54 58.01 | 2 | 27.10 | 2 | — 0.72 | + 1.51 |
| 15 | 359.5 | 326 4 2.52 | 3 | 26.04 | 3 | — 0.23 | + 0.77 |
| 16 | 372.5 | 326 26 39.11 | 3 | 23.60 | 3 | — 4.40 | + 1.28 |

" The above places are referred to the mean equinox of January 1st, 1847, and mean obliquity. The planet's place is corrected for stellar, but not for planetary aberration. It is also corrected for planetary parallax. The residual errors, though small, show in the course of six months a sensible deviation of the orbit from a circular form. They show at the same time that if the eccentricity is greater than 0.06, the true anomaly must be nearly ± 90°, a possible, but, as was said before, an improbable case.

" The next step in the investigation was to make equations of condition of the form, $0 = a\,x + b\,y + c\,z + n$, in which $x$ is $50 \times \Delta\, r$, $\eta = 10 \times \Delta\, \nu$, $z = \Delta\, \lambda_{300}$, $a$, $b$, and $c$ are computed coefficients, $\nu$ the daily increase of $\lambda$, and $\lambda_{300}$ the heliocentric longitude of Neptune on the 300th day of the year. Finally, $n$ is the equivalent heliocentric value of $\Delta\, \alpha$ above with sign changed. The number of equations was reduced to nine, by taking for the first the one third of Nos. one and two, above. Then follow the next five unchanged, then the mean of Nos. eight, nine, and ten. No. eleven is rejected, then the mean of Nos. twelve and thirteen. Lastly, the mean of Nos. fourteen, fifteen, and sixteen. The nine conditional equations have then equal weight, and stand thus : —

$$
\begin{array}{rrrrrr}
 & & & & & \text{Residual Error.} \\
 & & & & & \varepsilon \\
0 = & -\,0.303 \times x & -\,2.700 \times y & +\,\tfrac{1}{3} \times z & +\,3''.88\,, & -\,0''.08 \\
= & +\,3.016 & -\,3.000 & +\,1 & +\,1.00\,, & +\,0.49 \\
= & +\,3.363 & -\,2.400 & +\,1 & -\,0.27\,, & +\,0.19 \\
= & +\,3.685 & -\,1.800 & +\,1 & -\,1.10\,, & +\,0.22 \\
= & +\,4.038 & -\,1.000 & +\,1 & -\,3.07\,, & -\,1.03 \\
= & +\,4.268 & -\,0.200 & +\,1 & -\,4.12\,, & -\,1.31 \\
= & +\,4.594 & +\,1.267 & +\,1 & -\,2.44\,, & +\,1.03 \\
= & +\,4.248 & +\,3.950 & +\,1 & -\,1.73\,, & -\,0.13 \\
= & +\,3.332 & +\,6.133 & +\,1 & +\,1.81\,, & -\,0.16
\end{array}
$$

The solution by least squares gives,

$$
\begin{array}{l}
0 = 118.879 \times x + 7.477 \times y + 30.443 \times z - 45''.629. \\
0 = 7.477 \times x + 85.149 \times y + 0.250 \times z + 1.687. \\
0 = 30.443 \times x + 0.250 \times y + 8.111 \times z - 8.627.
\end{array}
$$

Whence,

$$
\begin{array}{l}
\Sigma\,\epsilon\epsilon = 4''.21. \\
x = +\,3.255712. \\
y = -\,0.272963. \\
z = -\,11.1475.
\end{array}
$$

$$.r = 29.939950 + \tfrac{x}{50} = 30.00506.$$

$$n = \frac{v_{359} - v_{270}}{t_{359} - t_{270}}\text{, corrected for aber.} = 21''.65789.$$

$$a = \frac{1}{\frac{2}{r} - \left(\frac{rn}{k^2}\right)^2} = 30.20058.$$

$k =$ Gauss's constant of the earth's velocity.

$$\mu = ka^{-\frac{3}{2}} = 21''.37881.$$

Period $= T =$ 165.97030 tropical years.

"Thus it appeared that Elements II., assuming the eccentricity and perihelion point unknown, and neglecting the daily variation of the radius vector, would give an ephemeris following the planet's path for five months so closely, that the sum of the squares of 9 comparisons of theory with observation was only 4''.21. This residual quantity might have been still further reduced by inserting a fourth term of the form $d\,u$, in which $u$ is the daily increase of $r_{300}$, and $d$, a coefficient of the form

$$d = a\,\Delta\,r + \left(\tfrac{d\lambda}{dt}\right)\Delta\,t,$$

where $a$ is the former coefficient of $x$, and $\left(\frac{d\lambda}{dt}\right)$ is the daily variation of $\lambda$ for conservation of areas. Since these terms become sensible in the course of a few additional months, it was thought preferable to postpone the research after the final values of $e$ and $\pi$, and by assigning them suitable limits, that of $e < 0.06$, and to $\pi$ its corresponding value from the equation, $\cos. v = \frac{a(1-e^2)-r}{e\,r}$, then to compute the locus of Neptune's orbit for these limits for any given date, and search for an observation of a missing star in Neptune's path on the same night in some of the ancient catalogues. The fact that $(n - \mu)$ is at this time only 0''.28, shows the limit of $v < \pm 90^{\circ}$. The following table of limits of $v$ was computed.

| | Assumed values of $e$. | Concluded values of $v$. |
|---|---|---|
| | 1.00 | ± 90°.0 |
| | 0.06 | ± 87.2 |
| | 0.05 | ± 85.4 |
| | 0.04 | ± 83.0 |
| | 0.03 | ± 79.2 |
| | 0.02 | ± 72.2 |
| | 0.01 | ± 50.1 |
| Minimum limit, | 0.006474 | 0.0 |

"Now, since all values of $\pi = (w - v)$, $w$ being the longitude on the orbit, are *à priori* equally probable, and since the maximum value of $v$ is $\pm 90^\circ$, for $e = 1$, we have the *à priori* probabilities for $e$ as follows: —

| Limit of *e*. | *À priori* probability. |
|---|---|
| Limit $e > 0.06$ and $< 1.00$ | $\frac{2.7}{90}$ |
| $e > 0.05$ " $< 0.06$ | $\frac{1.8}{90}$ |
| $e > 0.04$ " $< 0.05$ | $\frac{2.4}{90}$ |
| $e > 0.03$ " $< 0.04$ | $\frac{3.8}{90}$ |
| $e > 0.02$ " $< 0.03$ | $\frac{7.0}{90}$ |
| $e > 0.01$ " $< 0.02$ | $\frac{22.1}{90}$ |
| $e > 0.006474 < 0.01$ | $\frac{50.1}{90}$ |

"This *à priori* probability, that $e$ falls between 0.01 and 0.006474, of $\frac{5}{9}$, is derived from a theory, which in a half-year's path of Neptune presents throughout a probable discrepancy of 0''.49 between theory and observation.

"The next inquiry is, how far this value of $e$ is consistent with the equations of condition between $e$ and $a$, derived from the residual perturbations of Uranus. From the two full computations of Mr. Adams's *Supplement to the Nautical Almanac* for 1852, for values of $\frac{a}{a'} =$ 0.50 and 0.51, $e$ varies from 0.16103 to 0.12062. Hence Mr. Walker found the conditional equation,

$$e = 0.16103 \left[\frac{0.12062}{0.16103}\right] \left(\frac{\log.\ \frac{a}{38.4}}{\log.\ \frac{1}{1.03}}\right).$$

Whence for $a = 30.20058$, $e = 0.0153883$, which is the eccentricity from Adams's computations, with this value of the mean distance. The mean longitude of Neptune, according to Mr. Adams's remark, also comes out right for this hypothesis.

"It remains to consider Le Verrier's limits in his additions to the *Connaissance des Temps* for 1849. In his first solution, he gives for the minimum limit of the mean longitude of Neptune for 1800, 234°, whereas Elements II., with $e < 0.0153883$, would require at that date a mean longitude of 226°. In his final solution, Le Verrier finds the most probable value 240° nearly. The limit $\pm 5^\circ$ gives for the minimum 235°. If it be asked why Le Verrier and Adams differ in their conclusions, it may be answered, that they differ in their residual perturbations required, from the more complete computations of

Le Verrier. It was during a discussion of this subject by Professor Peirce and Mr. Walker, that the possible omission of some inequality of long period by Le Verrier was suggested by Professor Peirce. On comparing the mean motions of Uranus and Neptune by Elements II., it was found that if the mean distance of Neptune is thirty nearly, such an inequality of great power has been omitted. Thus we have

$$\begin{array}{rr} \text{For Uranus, } \mu' = 42''.2331 & \mu' = 42''.2331. \\ \text{Elements II., Neptune, } \mu = 21.3788 & 2\,\mu = 42.7576. \\ & 2\,\mu - \mu' = 0.5245. \end{array}$$

Instead of this, Le Verrier retained only the inequality from $(3\,\mu - \mu')$, which was suited to the mean distance 38.

" It is impossible to decide, without a revision of the calculations of Le Verrier, substituting the new inequality depending on $2\,\mu - \mu'$, whether the limits would not be so far modified as to include Mr. Walker's Elements II. The inequality of $(2\,\mu - \mu)$, if the mean distance is nearly 30, is the most remarkable yet discovered in the primary solar system, and merits a thorough analytical investigation.

"In conclusion, then, it may be remarked, that the hypothesis of a very small eccentricity is strongly probable by the Elements II., probable by Adams's computations from the residual perturbations of Uranus, and not necessarily contradicted by Le Verrier's computed limits, unless we admit also that they exclude at the same time the possibility of the semi-axis major which results so directly from Mr. Walker's normal places.

" It remains to consider the question, whether any light can be thrown on the subject of the orbit of Neptune by the ancient catalogues. On this head it may be remarked that Bradley, Lacaille, and Mayer seldom observed stars of the magnitude 7, 8. In the first three volumes of Piazzi's original observations, now in course of publication by the Vienna Observatory, there is no one of those " not found in the catalogues," that was near enough to the path of Neptune, on the night of observation, to authorize the supposition of its having been that planet. Bessel, in preparing his zones, never swept so far south as the actual position of Neptune. The Paramatha Catalogue seldom extends north of the 33d parallel of south declination. The Madras observations were generally confined to the stars of Piazzi's or Baily's Catalogues. The only remaining chance at present for finding an ancient observation of Neptune (though doubtless others will be found hereafter) was in the *Histoire Céleste Française.* Mr. Walker found that Lalande had twice included the Neptunian region in his sweeps, viz. May 8th and 10th, 1795. Accordingly, he computed the locus of Neptune on the latter night for all values of $e$, from 0.006474 to 0.06, and for the two cases of $\pm v$ at the present time. This locus, referred to the mean longitude and obliquity for 1800, so as to compare with Hussey's Hour XIV. in the Catalogue of the Berlin Academy, is as follows: —

LOCUS OF NEPTUNE, MAY 10TH, 1795, FOR VARIOUS ECCENTRICITIES.

| | | Neptune's R. A. 1800. | Dec. 1800. |
|---|---|---|---|
| | | h. m. s. | ° ′ |
| For $+v$, and for | $e = 0.06$ | 13 45 50 | — 9 3.1 |
| “ | $e = 0.05$ | 13 49 48 | — 9 24.6 |
| “ | $e = 0.04$ | 13 53 51 | — 9 47.0 |
| “ | $e = 0.03$ | 13 57 52 | —10 8.6 |
| “ | $e = 0.02$ | 14 1 56 | —10 29.6 |
| “ | $e = 0.01$ | 14 3 52.2 | —10 40.40 |
| For $v = 0$ | $e = 0.006474$ | 14 9 18.0 | —11 8.75 |
| For $-v$ | $e = 0.01$ | 14 12 9.1 | —11 23.46 |
| “ | $e = 0.02$ | 14 16 36 | —11 44.5 |
| “ | $e = 0.03$ | 14 20 35 | —12 6.1 |
| “ | $e = 0.04$ | 14 24 29 | —12 25.3 |
| “ | $e = 0.05$ | 14 28 19 | —12 44.2 |
| “ | $e = 0.06$ | 14 32 8 | —13 2.6 |

“ Mr. Walker then selected from the *Histoire Céleste* all the stars within 15′ of the locus of Neptune in the above table.

| No. | Mag. | R. A. 1800. | Dec. 1800. | Authority. |
|---|---|---|---|---|
| | | h. m. s. | ° ′ | |
| 1 | 9,10 | 13 50 36 | — 9 24.0 | L$^1$ |
| 2 | 7,8 | 13 52 48 | — 9 58.8 | L$^1$ |
| 3 | 7,8 | 13 52 53 | — 9 45.7 | L$^1$ B$^1$ |
| 4 | 8,9 | 13 57 13 | —10 11.7 | L$^1$ B$^1$ |
| 5 | 9 | 13 59 54 | —10 26.4 | L$^1$ B$^1$ |
| 6 | 8 | 14 10 0 | —11 26.5 | L$^1$ B$^1$ |
| 7 | 8 | 14 12 0 | —11 8.3 | L$^1$ B$^1$ |
| 8 | 7,8 | 14 12 0.9 | —11 20.96 | L$^1$ missing star. |
| 9 | 8 | 14 29 37 | —13 10.7 | L$^1$ B$^1$ |

“ The only stars in this list, not found in Bessel's Zones, are Nos. 1, 2, and 8. Of these No. 1 is too small. No. 2 is too far south (17′) of Neptune's computed path. No. 8 is within 2′ of the computed path, and if missing now in the heavens may have been the planet. This comparison was made by Mr. Walker on the 2d of February, a cloudy night. He immediately, by letter of that date, notified the Superintendent of the Observatory, Lieutenant Maury, of his expectation that on examination of that region on the next clear night No. 8 would be missing.

" On the 4th of February, Professor Hubbard examined the region and verified the expectation of Mr. Walker. The star was in fact missing. Here, then, was a presumption in favor of their identity. Mr. Walker believed his limits sufficiently extensive to comprise the Neptunian region of May 8th and 10th, 1795. The planet was of the size 7, 8 magnitude, seldom omitted by Lalande. No star except No. 8 fulfilled all the conditions. There is, however, a (:) placed by Lalande after the observation of the star No. 8, which indicates that the declination is doubtful ± 5′. Mr. Walker's attention was first called to this circumstance by Professor Peirce.

The entries in the *Histoire Céleste* are as follows : —

| | Mag. | Wire I. | Mid. Wire. | Wire II. | Zen. Dis. | |
|---|---|---|---|---|---|---|
| | | | h. m. s. | h. m. s. | ° ′ ″ | |
| | 7,8 | | 14 11 23.5 | | 60 7 19 : | (*now missing.*) |
| 2 ♎ | 6 | | 14 12 3.4 | | 59 33 59 | |
| | 8 | | | 14 11 50.5 : | 59 54 40 | |

If then the two (:) only indicate a doubt of 5′, there is no contradiction of the possible identity of the star 7,8 mag. and the planet. If, however, the two (:) may be so construed as to make the 1st and 3d star the same in declination as they are in right ascension, then no star is missing, and the heavens are now as in Lalande's time. The difference of magnitudes 7,8 and 8 militates against this supposition, that stars 1 and 3 are the same.

" Mr. Walker concludes by remarking, that he has stated all the circumstances known to him favorable or unfavorable to the supposition of identity of the star and planet. The decision of the question must be the work of time. In order to establish the priority in determining these elements, if the identity should be confirmed, he had computed his Elements III. upon this hypothesis of identity. The three sets of elements are here given, referred to the mean equinox of January 1st, 1847, and to mean time Greenwich."

| | | | Elements if the missing star was Neptune. |
|---|---|---|---|
| Elements of Neptune. | Circular Hypothesis I. | Elliptic Hypothesis II. | Elliptic Hypothesis III. |
| Longitude of perihelion, $\pi$ | unknown | unknown | 0° 12′ 25″.51 |
| " " ascend. node, $\Omega$ | 129° 48′ 23″.16 | 129° 48′ 23″.16 | 131° 17′ 35″.80 |
| Inclination, $i$ | 1° 45′ 19″.88 | 1° 45′ 19″.88 | 1° 54′ 53″.83 |
| Long. of epoch, Jan. 1, 1847, $\varepsilon$ | unknown | unknown | 328° 7′ 56″.64 |
| True heliocentric long. on orbit, Sept. 28, 1847 $w$ | 326° 59′ 41″.50 | 326° 59′ 34″.74 | 326° 59′ 34″.74 |
| Eccentricity, $e$ | 0. | unknown | 0.0088407 |
| Radius vector, Sept. 28, 1847, $r$ | 29.93995 | 30.00506 | 30.02596 |
| True sid. orb. mot., " $n$ | 21″.65857 | 21″.65789 | 21″.64553 |
| Mean distance, $a$ | 29.93995 | 30.200585 | 30.25042 |
| Mean daily sidereal motion, $\mu$ | 21″.65857 | 21″.37881 | 21″.32600 |
| Period in tropical years, $T$ | $163^{y}.8259$ | $165^{y}.97030$ | $166^{y}.38134$ |

Professor Peirce remarked, that the orbits given by Mr. Walker differ so widely from the predictions, that he has been induced to make a careful reëxamination of the observations. He has not only himself verified Mr. Walker's distance of 30, and the consequent angular motion; but Mr. George P. Bond, of the Cambridge Observatory, has also, at his request, verified this distance and motion from the Cambridge observations alone. From these data, without any hypothesis in regard to the character of the orbit, he has arrived at the conclusion, that THE PLANET NEPTUNE IS NOT THE PLANET TO WHICH GEOMETRICAL ANALYSIS HAD DIRECTED THE TELESCOPE; that its orbit is not contained within the limits of space which have been explored by geometers searching for the source of the disturbances of Uranus; and that its discovery by Galle must be regarded as a happy accident.

" Mr. Adams, in his *Explanation of the Observed Irregularities of Uranus*, considered two hypothetical orbits, in one of which the mean distance is 38.4, or just double that of Uranus, and in the other it is 37.6; while M. Le Verrier, in his ***Researches into the Motions of the Planet Herschel, called Uranus***, after deriving some rough approximations from the consideration of the mean distance 38.4, proceeds to the accurate examination of the three distances 39.1, 37.6, and 36.2.

The extension of the investigations to any other mean distances can be made only by assuming a continuous law to pervade the subject of inquiry, and that there is no important change in the character of the resulting perturbations. Guided by this principle, well established, and legitimate, if confined within proper limits, M. Le Verrier narrowed with consummate skill the field of research, and arrived at two fundamental propositions, namely, —

1st. That the mean distance of the planet cannot be less than 35, or more than 37.9. The corresponding limits of the time of sidereal revolution are about 207 and 233 years.

2d. "That there is only one region in which the disturbing planet can be placed, in order to account for the motions of Uranus ; that the mean longitude of this planet must have been, on January 1st, 1800, between 243° and 252°."

"Neither of these propositions is of itself necessarily opposed to the observations which have been made upon Neptune, but the two combined are decidedly inconsistent with observation. It is impossible to find an orbit, which, satisfying the observed distance and motion, is subject at the same time to both of these propositions, or even approximately subject to them. If, for instance, a mean longitude and time of revolution are adopted according with the first, the corresponding mean longitude in 1800 must have been at least 40° distant from the limits of the second proposition. And again, if the planet is assumed to have had in 1800 a mean longitude near the limits of the second proposition, the corresponding time of revolution with which its motions satisfy the present observations cannot exceed 170 years, and must therefore be about 40 years less than the limits of the first proposition. Neptune cannot, then, be the planet of M. Le Verrier's theory, and cannot account for the observed perturbations of Uranus under the form of the inequalities involved in his analysis.

"It is not, however, a necessary conclusion that Neptune will not account for the perturbations of Uranus, for its probable mean distance of about 30 is so much less than the limits of the previous researches, that no inference from them can be safely extended to it. An important change, indeed, in the character of the perturbations takes place near the distance 35.3 ; so that the continuous law by which such inferences are justified is abruptly broken at this point, and it was hence an oversight in M. Le Verrier to extend his inner limit to the distance 35. A planet at the distance 35.3 would revolve about the

Sun in 210 years, which is exactly two and a half times the period of the revolution of Uranus. Now, if the times of revolution of two planets were exactly as 2 to 5, the effects of their mutual influence would be peculiar and complicated, and even a near approach to this ratio gives rise to those remarkable irregularities of motion which are exhibited in Jupiter and Saturn, and which greatly perplexed geometers until they were traced to their origin by Laplace. This distance of 35.3, then, is a complete barrier to any logical deduction, and the investigations with regard to the outer space cannot be extended to the interior.

" The observed distance 30, which is probably not very far from the mean distance, belongs to a region which is even more interesting in reference to Uranus than that of 35.3. The time of revolution which corresponds to the mean distance 30.4 is 168 years, being exactly double the year of Uranus, and the influence of a mass revolving in this time would give rise to very singular and marked irregularities in the motions of this planet. The effect of a near approach to this ratio in the mean motions is partially developed by Laplace, in his theory of the motions of the three inner satellites of Jupiter. The whole perturbation arising from this source may be divided into two portions or inequalities, one of which, having the same period with the time of revolution of the inner planet, is masked to a great extent behind the ordinary elliptic motions, while the other has a very long period, and is exhibited for a great length of time under the form of a uniform increase or diminution of the mean motion of the disturbed planet. But it is highly probable that the case of Neptune and Uranus is not merely that of a near approach to the ratio of 2 to 1 in their times of revolution, but that this ratio is exactly preserved by those planets ; for it may be shown, as was shown by Laplace for the ratio two fifths, that a sufficiently near approach to it must, on account of the mutual action of the planets, result in the permanent establishment of this remarkable ratio. Thus, if

$v =$ the mean longitude of Uranus,

$v' =$ that of Neptune,

$V = 2v' - v$; and if D expresses the differential coefficient relatively to the time, a near approach to the ratio of 2 to 1 gives the equations,

$$D^2 v = p \sin. (2v' - v + A) = p \sin. (V + A),$$

$$D^2 v' = q \sin. (2v' - v + A) = q \sin. (V + A);$$

in which $p$, $q$, and A are known functions of the masses and different elements of the orbits. These equations give at once

$$D^2V = 2\,D^2v' - D^2v = (2\,q - p) \text{ sin. } (V + A),$$

which, multiplied by 2 D V and integrated, becomes

$$D\,V = \surd\,[H^2 - (4\,q - 2p) \text{ cos. } (V + A)],$$

in which $H = 2\,n' - n$;
if $n =$ the mean motion of Uranus,
and $n' =$ that of Neptune.

It follows from the value of DV, that if

$$H^2 < 4\,q - 2\,p,$$

$V + A$ cannot increase indefinitely, and that, therefore, the term

$$(2\,n' - n)\,t,$$

upon which its indefinite increase depends, must vanish, or in other words $2\,n' - n = 0$,

and $V + A$ must oscillate in value either
about zero when $2\,p - 4\,q$ is positive,
or about 180° when $2\,p - 4\,q$ is negative.

The probability of the occurrence of this ratio depends, it will be seen, upon the magnitudes of $p$ and $q$, which are always of opposite signs. It is evident, from inspecting the computations of Mr. Walker, that Neptune's period of revolution is not less than in his second hypothesis of 166 years; and Professor Peirce infers from the investigations which he has already made, that a period of 166½ years, which involves only a slight additional eccentricity, is already a sufficiently near approximation to establish the exact permanency of the period of 168 years. As soon, then, as there may be observations sufficient to prove that Neptune revolves in more than 166½, and in less than 169½ years, the conclusion is inevitable, that its year is precisely twice as long as that of Uranus."

Professor Peirce communicated, from Mr. Bond, of the Cambridge Observatory, the following

## OBSERVATIONS ON THE COMET OF MARCH 4TH, 1847.

### *Made at Cambridge Observatory.* Long. $4^{h.}$ $44^{m.}$ $32^{s.}$.

Corrected for refraction, and referred to the Mean Equinox of Jan. 1st, 1847.

| Cambridge Mean Solar Time. | Comet's | | Star of Comparison. | | No. of Comp. | |
|---|---|---|---|---|---|---|
| | A. R. | Dec. | A. R. | Dec. | | |
| 1847. d. h. m. s. | h. m. s. | ° ′ ″ | h. m. s. | ° ′ ″ | | |
| Mar. 4 8 40 09 | 23 35 50.5 | +50 01 46 | 23 35 14.67 | 49 44 08.3 | 6 | Star of 10th mag. comp. with 18 Andr. |
| " 5 8 36 54 | 23 39 13.2 | 48 54 28 | 23 33 59.16 | 48 39 54.9 | 6 | Gr. Cat. 4125. |
| " 6 8 31 01 | 23 42 28.5 | 47 45 43 | 23 45 09.36 | 47 37 55.0 | 4 | St. of 9th mag. comp. with Gr. 4167 & 4175. |
| " 8 7 24 29 | 23 48 38.6 | 45 25 14 | 23 47 54.82 | 45 30 26.6 | 6 | Gr. Cat. 4166. |
| | | | 23 51 00.34 | 45 33 40.5 | 6 | " 4181. |
| " 10 7 18 20 | 23 54 31.1 | 42 53 34 | 23 55 20.47 | 42 47 29.4 | 5 | St. of 9th mag. comp. with 30 Gr. & 26 Andr. |
| " 11 17 02 06 | 23 58 27.9 | 41 00 52 | 23 55 52.80 | 41 10 15.3 | 3 | Gr. 4212. |
| | | | 23 56 45.49 | 41 14 29.1 | 9 | Gr. 4219. |
| " 12 8 22 37 | 0 00 10.1 | 40 08 09 | 0 05 35.14 | 40 11 28.2 | 4 | 23 Andromedæ. |
| " 15 8 00 57 | 0 07 40.4 | 35 44 37 | 0 10 21.07 | 35 56 12.0 | 4 | σ Andromedæ. |
| " 19 7 19 15 | 0 16 16.6 | 29 03 34 | 0 22 03.57 | 28 54 28.4 | 4 | 28 Andromedæ. |
| " 24 7 13 | 0 24 26 | 18 36 07 | 1 45 08.65 | 18 32 37.3 | 1 | $\gamma^2$ Arietis. |

" *March 4th.* The comet was first seen at 7 o'clock, in close proximity to a star of the 10, 11 magnitude; in brightness it appears to be but just beyond the limit of unassisted vision. It has no visible nucleus, and but slight condensation of light towards its centre. Faint traces of a tail are suspected in a direction nearly opposite to the sun. The observations this evening are made with the annular micrometer.

" *March 5th.* From this date up to the 24th, the spider-line micrometer was employed, the field being illuminated with red light.

" *March 6th.* The comet is brighter than heretofore, showing a tail of 20′ in length, of a conical outline, its axis being directed towards the sun. The head of the comet is very irregular, its light is somewhat concentrated, but there is no well-defined nucleus, which circumstance in some degree affects the accuracy of the observations.

" *March 8th.* To-night, for the first time, the comet is visible to the naked eye, as a star of the fifth or sixth magnitude. The angle of position of the tail is n. f. 76° 30′; consequently it is not exactly in a direction opposite to the sun. The estimated diameter of the light surrounding the head was four or five minutes of arc.

" *March 12th.* In the comet-seeker the tail may be traced two or three degrees. Angle of position of its axis is 81° n. f.

" *March 15th.* The rough and irregular outline of this comet reminds one of the figures of Hevelius. Length of the tail four or five degrees.

" *March 24th.* The altitude of the comet at this observation was three degrees. The place given is derived from a single passage over the annular micrometer, and is therefore liable to some uncertainty; it however agreed nearly with the result from instrumental readings.

" The following elements have been computed from the observations given above. By Professor Peirce, from the observations on March 4th, 5th, and 6th.

1847, Per. passage, March $31^{st}.907$, Greenwich M. S. T.
" distance, 0.04444.
Long. of ascending node, 10° 13′.
" perihelion, 256 33.
Inclination, 48 53.
Motion direct.

" By G. P Bond, from places of March 5th, 12th, and 19th, account being taken of the small corrections.

1847, Per. passage, March $30^{th}.3369$, Greenwich M. S. T.
" distance, 0.0445986.
Long. of ascending node, 21° 06′ 46″.
" perihelion, 275 16 22.
Inclination, 48 41 49.
Motion direct.

" The places computed from the latter orbit require the following corrections.

March 5th, Obs'd — Comp. Long. = + 0″.2 Obs'd — Comp. Lat. = + 0″.5.
12th, " " = — 3.6 " " = — 44.5.
19th, " " = — 0.3 " " = — 0.7."

**Mr. William C. Bond communicated a second series of moon culminations observed at the Cambridge Observatory.**

" The observations now presented to the Academy were made at the first station occupied as an Observatory in Cambridge. Lat. 42° 22′ 22″. Long. $4^{h.}$ $44^{m.}$ $30^{s.}$. The Transit Instrument has an object-glass of 2¾ inches aperture, and 46 inches focus. The clock error has been determined solely by means of the standard stars of the *Nautical Almanac.* The southern meridian mark of this station is situated on Blue Hill, in Canton; it is placed on a massive and conspicuous stone tower, erected for the purpose, 58,520 feet south of the transit instrument, and within a short distance of one of the principal stations of the State and United States Surveys.

## MOON CULMINATIONS,

*Observed at Cambridge, corrected for Collimation, Level, and Azimuthal Deviation of the Transit Instrument, and for Clock Rate and Error on Sidereal Time.*

Lat. +42° 22′ 22″. Lon. West of Greenwich, 4 h. 44 m. 30 s.

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1840, Jan. 12 | ☽'s 1st Limb | 1 | 44 | 54.04 | | | B* |
| " | α Arietis | 1 | 58 | 10.64 | 10.55 | —0.09 | " |
| " | δ Arietis | 3 | 02 | 30.62 | 30.36 | —0.26 | " |
| 13 | β Arietis | 1 | 45 | 49.50 | 49.34 | —0.16 | W |
| " | α Arietis | 1 | 58 | 10.48 | 10.53 | +0.05 | " |
| " | ☽'s 1st Limb | 2 | 42 | 28.24 | | | " |
| " | δ Arietis | 3 | 02 | 30.28 | 30.36 | +0.08 | " |
| " | g Arietis | 3 | 14 | 53.04 | 53.30 | +0.26 | " |
| 16 | l Aurigæ | 5 | 28 | 24.05 | 23.70 | —0.35 | B |
| " | ☽'s 1st Limb | 6 | 01 | 15.84 | | | " |
| " | κ Aurigæ | 6 | 05 | 12.89 | 13.12 | +0.23 | " |
| " | μ Geminorum | 6 | 13 | 18.88 | 18.85 | —0.03 | " |
| " | ε Geminorum | 6 | 34 | 07.23 | 07.34 | +0.11 | " |
| 17 | β Tauri | 5 | 16 | 12.87 | 12.83 | —0.04 | " |
| " | κ Aurigæ | 6 | 05 | 13.33 | 13.12 | —0.21 | " |
| " | μ Geminorum | 6 | 13 | 18.67 | 18.85 | +0.18 | " |
| " | ε Geminorum | 6 | 34 | 07.42 | 07.34 | —0.08 | " |
| " | ☽'s 1st Limb | 7 | 09 | 28.92 | | | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 25.31 | 25.41 | +0.10 | " |
| " | β Geminorum | 7 | 35 | 33.65 | 33.44 | —0.21 | " |
| 18 | ω Geminorum | 6 | 52 | 41.72 | | | W |
| " | δ Geminorum | 7 | 10 | 36.04 | 36.00 | —0.04 | " |
| " | β Geminorum | 7 | 35 | 33.43 | 33.41 | —0.02 | " |
| " | ☽'s 1st Limb | 8 | 13 | 42.30 | | | " |
| " | ☽'s 2d Limb | 8 | 16 | 08.94 | | | " |
| " | δ Cancri | 8 | 35 | 37.18 | 37.22 | +0.04 | " |
| 21 | ε Leonis | 9 | 36 | 47.57 | 47.74 | +0.17 | B |
| " | γ Leonis | 10 | 11 | 10.50 | 10.41 | —0.09 | " |
| " | ϱ Leonis | 10 | 24 | 25.29 | 24.75 | —0.54 | " |
| " | ☽'s 2d Limb | 10 | 58 | 15.15 | | | " |
| " | σ Leonis | 11 | 12 | 55.05 | 54.74 | —0.31 | " |
| " | l Leonis | 11 | 22 | 09.73 | 09.95 | +0.22 | " |
| 23 | b Virginis | 11 | 51 | 46.40 | 46.47 | +0.07 | " |
| " | η Virginis | 12 | 11 | 44.37 | 44.50 | +0.13 | " |
| " | ☽'s 2d Limb | 12 | 30 | 43.64 | | | " |
| " | γ Virginis | 12 | 33 | 35.14 | 34.33 | —0.81 | " |
| " | ψ Virginis | 12 | 46 | 03.42 | 03.53 | +0.11 | " |

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* B is the initial of *William C. Bond;* W, that of *William C. Bond, Jr.*

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1840, Jan. 23 | α Virginis | 13 | 16 | 47.23 | 47.19 | — 0.04 | B |
| 24 | γ Virginis | 12 | 33 | 34.36 | 34.36 | 0.00 | " |
| " | ψ Virginis | 12 | 46 | 03.16 | 03.56 | + 0.40 | " |
| " | ☽'s 2d Limb | 13 | 16 | 08.73 | | | " |
| " | ο Virginis | 13 | 37 | 25.68 | 25.77 | + 0.11 | " |
| Feb. 12 | α Tauri | 4 | 26 | 46.18 | 45.99 | — 0.19 | W |
| " | ι Aurigæ | 4 | 46 | 36.67 | 36.44 | — 0.23 | " |
| " | β Tauri | 5 | 16 | 12.56 | 12.60 | + 0.03 | " |
| " | ☽'s 1st Limb | 5 | 34 | 51.03 | | | " |
| " | C Tauri | 5 | 43 | 18.32 | 18.18 | — 0.14 | " |
| 13 | ϰ Aurigæ | 6 | 03 | 13.91 | 12.98 | — 0.97 | B |
| " | μ Geminorum | 6 | 12 | 18.97 | 18.70 | — 0.27 | " |
| " | ☽'s 1st Limb | 6 | 41 | 43.50 | | | " |
| " | τ Geminorum | 7 | 00 | 59.63 | 59.27 | — 0.36 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 25.60 | 25.46 | — 0.14 | " |
| " | β Geminorum | 7 | 35 | 33.49 | 33.50 | + 0.01 | " |
| 15 | β Geminorum | 7 | 35 | 33.31 | 33.49 | + 0.18 | " |
| " | 6 Cancri | 7 | 53 | 43.35 | 42.98 | — 0.37 | " |
| " | ϑ Cancri | 8 | 22 | 30.53 | 30.30 | — 0.23 | " |
| " | ☽'s 1st Limb | 8 | 46 | 04.42 | | | " |
| " | q Cancri | 9 | 10 | 04.89 | 04.85 | — 0.04 | " |
| 17 | ν Leonis | 9 | 49 | 39.05 | 39.00 | — 0.05 | W |
| " | α Leonis | 9 | 59 | 53.16 | 53.13 | — 0.03 | " |
| " | ☽'s 2d Limb | 10 | 34 | 52.74 | | | " |
| " | l Leonis | 10 | 40 | 52.69 | 52.62 | — 0.07 | " |
| " | χ Leonis | 10 | 56 | 47.66 | 47.79 | + 0.13 | " |
| 21 | ☽'s 2d Limb | 13 | 42 | 10.32 | | | B |
| " | ϰ Virginis | 14 | 04 | 23.10 | 23.73 | + 0.63 | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 03.81 | 03.64 | — 0.17 | " |
| " | α Scorpii | 16 | 19 | 36.16 | 37.37 | + 1.27 | " |
| March 8 | ☽'s 1st Limb | 3 | 05 | 12.38 | | | " |
| " | α Tauri | 4 | 26 | 45.70 | 45.66 | — 0.04 | " |
| 9 | ☽'s 1st Limb | 4 | 08 | 39.16 | | | W |
| " | β Tauri | 5 | 16 | 12.34 | 12.18 | — 0.16 | " |
| 11 | β Tauri | 5 | 16 | 12.14 | 12.14 | 0.00 | B |
| " | ☽'s 1st Limb | 6 | 21 | 01.29 | | | " |
| " | ε Geminorum | 6 | 34 | 07.19 | 06.90 | — 0.29 | " |
| " | τ Geminorum | 7 | 00 | 59.34 | 58.93 | — 0.41 | " |
| 12 | δ Geminorum | 7 | 11 | 35.45 | 35.71 | — 0.26 | " |
| " | ☽'s 1st Limb | 7 | 27 | 08.75 | | | " |
| " | β Geminorum | 7 | 35 | 33.11 | 33.21 | + 0.10 | " |
| " | δ Geminorum | 8 | 35 | 38.02 | 37.33 | — 0.69 | " |
| 13 | δ Geminorum | 7 | 10 | 35.87 | 35.69 | — 0.18 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 24.87 | 25.14 | + 0.27 | " |
| " | β Geminorum | 7 | 35 | 33.42 | 33.20 | — 0.22 | " |
| " | φ Geminorum | 7 | 43 | 44.24 | 44.08 | — 0.16 | " |
| " | ☽'s 1st Limb | 8 | 25 | 18.33 | | | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1840, March 13 | δ Cancri | 8 | 36 | 37.46 | 37.32 | — 0.14 | B |
| " | $\alpha^2$ Cancri | 8 | 49 | 46.12 | 45.97 | — 0.15 | " |
| 14 | δ Geminorum | 7 | 10 | 35.79 | 35.68 | — 0.11 | W |
| " | $\alpha^2$ Geminorum | 7 | 24 | 24.90 | 25.12 | + 0.22 | " |
| " | β Geminorum | 7 | 35 | 33.43 | 33.18 | — 0.25 | " |
| " | $\alpha^2$ Cancri | 7 | 49 | 46.37 | 45.97 | — 0.40 | " |
| " | ☽'s 1st Limb | 9 | 20 | 59.40 | | | " |
| " | π Leonis | 9 | 59 | 48.09 | 47.63 | — 0.46 | " |
| " | ε Leonis | 9 | 36 | 48.43 | 48.10 | — 0.33 | " |
| 16 | ε Hydræ | 8 | 38 | 19.90 | 20.05 | + 0.15 | B |
| " | α Leonis | 9 | 59 | 53.48 | 53.18 | — 0.30 | " |
| " | ϱ Leonis | 10 | 24 | 25.20 | 25.33 | + 0.13 | " |
| " | ☽'s 1st Limb | 11 | 01 | 15.84 | | | " |
| " | σ Leonis | 11 | 12 | 55.47 | 55.56 | + 0.09 | " |
| " | δ Leonis | 11 | 05 | 38.16 | 38.07 | — 0.09 | " |
| " | υ Leonis | 11 | 28 | 47.54 | 47.80 | + 0.26 | " |
| 21 | λ Virginis | 14 | 09 | 30.13 | 30.09 | — 0.04 | " |
| " | ☽'s 2d Limb | 14 | 59 | 26.51 | | | " |
| " | χ Libræ | 15 | 30 | 52.07 | 52.11 | + 0.04 | " |
| April 5 | ☽'s 1st Limb | 3 | 44 | 55.02 | | | " |
| " | β Tauri | 5 | 16 | 11.74 | 11.71 | — 0.03 | " |
| 6 | α Tauri | 4 | 26 | 45.22 | 45.20 | — 0.02 | " |
| " | ☽'s 1st Limb | 4 | 52 | 10.58 | | | " |
| 7 | ☽'s 1st Limb | 6 | 00 | 11.32 | | | " |
| " | ε Geminorum | 6 | 33 | 06.53 | 06.43 | — 0.10 | " |
| 9 | $\alpha^2$ Geminorum | 7 | 24 | 24.35 | 24.65 | + 0.30 | " |
| " | β Geminorum | 7 | 35 | 32.74 | 32.75 | + 0.01 | " |
| " | ☽'s 1st Limb | 8 | 07 | 30.03 | | | " |
| " | ϑ Cancri | 8 | 22 | 30.17 | 29.76 | — 0.41 | " |
| " | δ Cancri | 8 | 35 | 37.27 | 36.97 | — 0.30 | " |
| 10 | ϑ Cancri | 8 | 22 | 29.63 | 29.74 | + 0.11 | W |
| " | δ Cancri | 8 | 35 | 36.73 | 36.95 | + 0.22 | " |
| " | ☽'s 1st Limb | 9 | 04 | 20.32 | | | " |
| " | λ Leonis | 9 | 22 | 37.31 | 37.14 | — 0.17 | " |
| " | ο Leonis | 9 | 32 | 38.75 | 38.51 | — 0.24 | " |
| 13 | α Hydræ | 9 | 19 | 44.99 | 45.24 | + 0.25 | " |
| " | ε Leonis | 9 | 36 | 47.79 | 47.81 | + 0.02 | " |
| " | α Leonis | 9 | 59 | 53.02 | 52.96 | — 0.06 | " |
| " | χ Leonis | 10 | 56 | 47.92 | 47.90 | — 0.02 | B |
| " | *q* Leonis | 11 | 09 | 05.89 | 05.74 | — 0.15 | " |
| " | ☽'s 1st Limb | 11 | 31 | 49.67 | | | " |
| " | β Virginis | 11 | 42 | 24.26 | 24.31 | + 0.05 | " |
| " | *b* Virginis | 11 | 51 | 47.93 | 47.49 | — 0.44 | " |
| 15 | β Corvi | 12 | 26 | 02.10 | 02.04 | — 0.06 | W |
| " | 53 Virginis | 13 | 03 | 35.56 | 35.65 | + 0.09 | " |
| " | ☽'s 2d Limb | 13 | 05 | 11.89 | | | " |
| 16 | β Corvi | 12 | 26 | 02.03 | 02.05 | + 0.02 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A.R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1840, April 16 | α Virginis | 13 | 16 | 48.91 | 48.85 | — 0.06 | W |
| " | ☽'s 2d Limb | 13 | 52 | 01.67 | | | " |
| " | λ Virginis | 14 | 10 | 30.61 | 30.49 | — 0.12 | " |
| 17 | λ Virginis | 14 | 10 | 30.46 | 30.50 | + 0.04 | B |
| " | ☽'s 2d Limb | 14 | 40 | 41.44 | | | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 05.24 | 04.88 | — 0.36 | " |
| " | 20 Libræ | 14 | 54 | 46.29 | 46.20 | — 0.09 | " |
| " | β Libræ | 15 | 08 | 26.77 | 26.83 | — 0.06 | " |
| 21 | α Scorpii | 16 | 19 | 39.04 | 39.17 | + 0.13 | W |
| " | $\gamma^2$ Sagittarii | 17 | 55 | 34.20 | 34.59 | + 0.39 | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 14.15 | 14.02 | — 0.13 | " |
| " | ☽'s 2d Limb | 18 | 15 | 17.42 | | | " |
| " | φ Sagittarii | 18 | 35 | 41.78 | 41.83 | + 0.05 | " |
| " | σ Sagittarii | 18 | 45 | 23.10 | 22.77 | — 0.33 | " |
| May 11 | τ Leonis | 11 | 19 | 44.70 | 44.72 | + 0.02 | " |
| " | ☽'s 1st Limb | 12 | 03 | 04.42 | | | " |
| " | η Virginis | 12 | 11 | 45.84 | 45.56 | — 0.32 | " |
| " | q Virginis | 12 | 25 | 33.94 | 33.85 | — 0.09 | " |
| " | α Virginis | 13 | 16 | 48.84 | 48.91 | + 0.07 | " |
| 13 | β Corvi | 12 | 26 | 02.09 | 01.97 | — 0.12 | " |
| " | ϑ Virginis | 13 | 01 | 42.99 | 42.99 | 0.00 | " |
| " | α Virginis | 13 | 16 | 48.92 | 48.91 | — 0.01 | " |
| " | ☽'s 1st Limb | 13 | 34 | 18.37 | | | " |
| " | ϰ Virginis | 14 | 04 | 24.89 | 24.97 | + 0.08 | " |
| 14 | β Corvi | 12 | 26 | 01.86 | 01.97 | + 0.11 | " |
| " | α Virginis | 13 | 16 | 48.86 | 48.91 | + 0.05 | " |
| " | ϰ Virginis | 14 | 04 | 25.02 | 24.97 | — 0.05 | " |
| " | ☽'s 1st Limb | 14 | 22 | 00.09 | | | " |
| " | 20 Libræ | 14 | 54 | 46.27 | 46.54 | + 0.27 | " |
| " | β Libræ | 15 | 08 | 27.32 | 27.15 | — 0.17 | " |
| 15 | ☽'s 1st Limb | 15 | 11 | 57.22 | | | B |
| " | ☽'s 2d Limb | 15 | 14 | 29.78 | | | " |
| " | ϰ Libræ | 15 | 32 | 47.55 | 47.44 | — 0.11 | " |
| " | σ Scorpii | 16 | 11 | 31.83 | 31.66 | — 0.17 | " |
| " | α Scorpii | 16 | 19 | 39.72 | 39.67 | — 0.05 | " |
| 16 | $\beta^1$ Scorpii | 15 | 56 | 11.52 | 11.63 | + 0.11 | " |
| " | ☽'s 2d Limb | 16 | 06 | 35.15 | | | " |
| " | α Scorpii | 16 | 19 | 39.90 | 39.70 | — 0.20 | " |
| " | σ Scorpii | 16 | 11 | 31.38 | 31.68 | + 0.30 | " |
| 17 | π Scorpii | 15 | 49 | 13.80 | 14.36 | + 0.56 | " |
| " | β Scorpii | 15 | 56 | 11.89 | 11.66 | — 0.23 | " |
| " | σ Scorpii | 16 | 11 | 31.37 | 31.70 | + 0.33 | " |
| " | α Scorpii | 16 | 19 | 39.51 | 39.72 | + 0.21 | " |
| " | τ Scorpii | 16 | 25 | 59.25 | 59.29 | + 0.04 | " |
| " | ☽'s 2d Limb | 17 | 00 | 58.98 | | | " |
| " | $A^1$ Ophiuchi | 17 | 05 | 33.92 | 34.32 | + 0.40 | " |
| " | ϑ Ophiuchi | 17 | 12 | 14.41 | 14.50 | + 0.09 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A.R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1840, May 17 | $e^2$ Ophiuchi | 17 | 21 | 42.37 | | | B |
| June 5 | $\alpha$ Leonis | 9 | 59 | 52.40 | 52.37 | — 0.03 | W |
| " | ☽'s 1st Limb | 10 | 12 | 35.42 | | | " |
| " | $\delta$ Leonis | 11 | 05 | 37.52 | 37.46 | — 0.06 | " |
| 8 | ☽'s 1st Limb | 13 | 19 | 32.72 | | | " |
| " | $x$ Virginis | 13 | 41 | 13.94 | 13.75 | — 0.19 | " |
| 10 | ☽'s 1st Limb | 14 | 06 | 27.42 | | | " |
| " | $\lambda$ Virginis | 14 | 10 | 30.50 | 30.70 | + 0.20 | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 05.30 | 05.24 | — 0.06 | " |
| 11 | $\lambda$ Virginis | 14 | 10 | 30.84 | 30.70 | — 0.14 | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 05.00 | 05.24 | + 0.24 | " |
| " | ☽'s 1st Limb | 14 | 55 | 33.52 | | | " |
| " | $i$ Libræ | 15 | 03 | 09.62 | 09.92 | — 0.30 | " |
| " | $\beta$ Libræ | 15 | 08 | 27.22 | 27.29 | + 0.07 | " |
| " | $\beta^1$ Scorpii | 15 | 56 | 11.60 | 11.89 | + 0.29 | " |
| 13 | $\beta^1$ Scorpii | 15 | 56 | 11.93 | 11.90 | — 0.03 | B |
| " | $\sigma$ Scorpii | 16 | 11 | 31.82 | 32.00 | + 0.18 | " |
| " | $\alpha$ Scorpii | 16 | 19 | 40.00 | 40.04 | + 0.04 | " |
| " | $\tau$ Scorpii | 16 | 25 | 59.65 | 59.72 | + 0.07 | " |
| " | ☽'s 1st Limb | 16 | 40 | 53.00 | | | " |
| " | A Ophiuchi | 17 | 05 | 34.80 | 34.77 | — 0.03 | " |
| " | $\vartheta$ Ophiuchi | 17 | 11 | 15.35 | 14.96 | — 0.39 | " |
| 14 | $\alpha$ Virginis | 13 | 16 | 48.90 | 48.78 | — 0.12 | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 05.40 | 05.23 | — 0.17 | " |
| " | $\alpha$ Scorpii | 14 | 19 | 40.20 | 40.04 | — 0.16 | " |
| " | ☽'s 1st Limb | 17 | 36 | 11.70 | | | " |
| " | ☽'s 2d Limb | 17 | 39 | 29.84 | | | " |
| 15 | $\alpha$ Scorpii | 16 | 19 | 40.06 | 40.45 | + 0.39 | W |
| " | $\gamma^2$ Sagittarii | 17 | 55 | 55.95 | 36.00 | + 0.05 | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 15.38 | 15.37 | — 0.01 | " |
| " | $\delta$ Sagittarii | 18 | 10 | 48.95 | 49.01 | + 0.06 | " |
| " | ☽'s 2d Limb | 18 | 34 | 05.74 | | | " |
| " | $\sigma$ Sagittarii | 18 | 45 | 24.37 | 24.35 | — 0.02 | " |
| " | $\tau$ Sagittarii | 18 | 57 | 01.01 | 00.78 | — 0.23 | " |
| 16 | ☽'s 2d Limb | 19 | 28 | 40.96 | | | B |
| " | $c$ Sagittarii | 19 | 52 | 52.50 | 52.46 | — 0.04 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 13.62 | 13.55 | — 0.07 | " |
| " | $\beta^2$ Capricorni | 20 | 12 | 04.15 | 04.38 | + 0.23 | " |
| July 10 | $\alpha^2$ Libræ | 14 | 42 | 05.00 | 05.10 | + 0.10 | W |
| " | $\beta$ Libræ | 15 | 08 | 27.13 | 27.19 | + 0.06 | " |
| " | $b$ Scorpii | 15 | 41 | 25.46 | 25.44 | — 0.02 | " |
| " | $\delta$ Scorpii | 15 | 50 | 56.41 | 56.37 | — 0.04 | " |
| " | $\beta^1$ Scorpii | 15 | 57 | 12.06 | 11.90 | — 0.16 | " |
| " | $\delta$ Ophiuchi | 16 | 05 | 01.10 | 01.16 | — 0.06 | " |
| " | $\alpha$ Scorpii | 16 | 19 | 40.12 | 40.10 | — 0.02 | " |
| " | ☽'s 1st Limb | 16 | 22 | 27.29 | | | " |
| " | $\tau$ Scorpii | 16 | 25 | 59.63 | 59.72 | + 0.09 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A.R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1840, July 11 | $\alpha^2$ Libræ | 14 | 42 | 05.12 | 05.09 | — 0.03 | W |
| “ | $\beta$ Libræ | 15 | 08 | 27.37 | 27.18 | — 0.19 | “ |
| “ | $\beta^1$ Scorpii | 15 | 56 | 11.92 | 11.90 | — 0.02 | “ |
| “ | $\delta$ Ophiuchi | 16 | 06 | 01.34 | 01.18 | — 0.16 | “ |
| “ | $\alpha$ Scorpii | 16 | 19 | 40.07 | 40.10 | + 0.03 | “ |
| “ | $\tau$ Scorpii | 16 | 25 | 59.82 | 59.72 | — 0.10 | “ |
| “ | ☽'s 1st Limb | 17 | 17 | 25.64 | | | “ |
| “ | $e^2$ Ophiuchi | 17 | 21 | 43.63 | 43.35 | — 0.28 | “ |
| “ | $\alpha$ Ophiuchi | 17 | 26 | 33.94 | 33.80 | — 0.14 | “ |
| “ | Sagittarii | 17 | 48 | 53.25 | 53.06 | — 0.19 | “ |
| 12 | $\beta$ Libræ | 15 | 08 | 27.20 | 27.18 | — 0.02 | B |
| “ | $\beta^1$ Scorpii | 15 | 56 | 11.78 | 11.89 | + 0.11 | “ |
| “ | $\delta$ Ophiuchi | 16 | 06 | 00.92 | 01.18 | + 0.26 | “ |
| “ | $\alpha$ Scorpii | 16 | 19 | 40.11 | 40.09 | — 0.02 | “ |
| “ | $e^2$ Ophiuchi | 17 | 21 | 43.35 | 43.35 | 0.00 | “ |
| “ | ☽'s 1st Limb | 18 | 13 | 11.79 | | | “ |
| “ | Sagittarii | 17 | 48 | 53.21 | 53.07 | — 0.15 | “ |
| “ | $\varphi$ Sagittarii | 18 | 35 | 43.83 | 43.76 | — 0.07 | “ |
| 14 | $\mu^1$ Sagittarii | 18 | 04 | 15.79 | 15.67 | — 0.12 | W |
| “ | $\chi^1$ Sagittarii | 19 | 15 | 36.26 | 36.20 | — 0.06 | “ |
| “ | $h^2$ Sagittarii | 19 | 27 | 02.16 | 02.20 | + 0.04 | “ |
| “ | ☽'s 1st Limb | 20 | 02 | 19.43 | | | “ |
| “ | ☽'s 2d Limb | 20 | 04 | 34.15 | | | “ |
| “ | $\alpha^2$ Capricorni | 20 | 10 | 15.20 | 14.11 | — 0.09 | “ |
| “ | $\upsilon$ Capricorni | 20 | 31 | 00.26 | 00.17 | — 0.09 | “ |
| 15 | $\upsilon$ Capricorni | 20 | 31 | 00.16 | 00.19 | + 0.03 | B |
| “ | ☽'s 2d Limb | 20 | 56 | 12.49 | | | “ |
| “ | $s$ Capricorni | 21 | 06 | 57.02 | 57.03 | + 0.01 | “ |
| “ | $\varepsilon$ Capricorni | 21 | 28 | 10.96 | 10.72 | — 0.24 | “ |
| 16 | $s$ Capricorni | 21 | 06 | 57.06 | 57.05 | — 0.01 | W |
| “ | $\beta$ Aquarii | 21 | 23 | 11.21 | 11.43 | + 0.25 | “ |
| “ | $\varepsilon$ Capricorni | 21 | 28 | 10.54 | 10.74 | + 0.20 | “ |
| “ | $\varepsilon$ Pegasi | 21 | 36 | 22.83 | 22.97 | + 0.17 | “ |
| “ | ☽'s 2d Limb | 21 | 45 | 45.04 | | | “ |
| “ | $\iota$ Aquarii | 21 | 57 | 50.95 | 51.01 | + 0.06 | “ |
| “ | $\vartheta$ Aquarii | 22 | 08 | 26.30 | 26.55 | + 0.25 | “ |
| “ | $\zeta$ Pegasi | 22 | 33 | 32.00 | 32.06 | + 0.06 | “ |
| “ | Fomalhaut | 22 | 48 | 51.22 | 51.20 | — 0.02 | “ |
| “ | $\alpha$ Pegasi | 22 | 56 | 50.74 | 50.66 | + 0.08 | “ |
| 20 | $d$ Piscium | 0 | 12 | 24.98 | 25.01 | + 0.03 | B |
| “ | $\beta$ Ceti | 0 | 35 | 36.00 | 36.14 | + 0.14 | “ |
| “ | ☽'s 2d Limb | 0 | 59 | 07.90 | | | “ |
| 21 | ☽'s 2d Limb | 1 | 52 | 17.62 | | | “ |
| “ | $\alpha$ Arietis | 1 | 58 | 12.27 | 12.20 | — 0.07 | “ |
| August 4 | ☽'s 1st Limb | 14 | 19 | 25.92 | | | W |
| “ | $\delta$ Ophiuchi | 16 | 06 | 01.00 | 00.97 | — 0.03 | “ |
| 7 | ☽'s 1st Limb | 16 | 56 | 54.77 | | | “ |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A.R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1840, Aug. 7 | A Ophiuchi | 17 | 05 | 34.48 | 34.79 | + 0.31 | W |
| " | ϑ Ophiuchi | 17 | 12 | 15.20 | 15.01 | — 0.19 | " |
| " | α Ophiuchi. | 17 | 27 | 33.74 | 33.65 | — 0.09 | " |
| 8 | ϑ Ophiuchi | 17 | 12 | 15.08 | 15.00 | — 0.08 | " |
| " | ☽ 's 1st Limb | 17 | 52 | 31.63 | | | " |
| " | $\gamma^2$ Sagittarii | 17 | 55 | 35.84 | 36.24 | + 0.40 | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 15.55 | 15.64 | + 0.09 | " |
| " | λ Sagittarii | 18 | 18 | 09.75 | 09.94 | + 0.19 | " |
| 9 | $\beta^1$ Scorpii | 15 | 56 | 11.64 | 11.63 | — 0.01 | B |
| " | δ Ophiuchi | 16 | 06 | 00.96 | 00.93 | — 0.03 | " |
| " | α Scorpii | 16 | 19 | 39.67 | 39.85 | + 0.18 | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 15.79 | 15.63 | — 0.16 | " |
| " | λ Sagittarii | 18 | 18 | 09.54 | 09.93 | + 0.39 | " |
| " | χ Sagittarii | 19 | 15 | 36.86 | 36.33 | — 0.56 | " |
| " | ☽ 's 1st Limb | 18 | 48 | 11.55 | | | " |
| " | ν Sagittarii | 18 | 57 | 01.28 | 01.32 | + 0.04 | " |
| 10 | τ Sagittarii | 18 | 57 | 01.36 | 01.32 | — 0.04 | W |
| " | ☽ 's 1st Limb | 19 | 42 | 48.90 | | | " |
| " | c Sagittarii | 19 | 52 | 53.19 | 53.25 | + 0.06 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 14.35 | 14.35 | 0.00 | " |
| " | $\beta^2$ Capricorni | 20 | 12 | 05.11 | 05.13 | + 0.02 | " |
| 14 | λ Aquarii | 22 | 44 | 19.72 | 19.76 | + 0.04 | " |
| " | ζ Pegasi | 22 | 33 | 32.51 | 32.61 | + 0.10 | " |
| " | Fomalhaut | 22 | 48 | 52.06 | 52.00 | — 0.06 | " |
| " | α Pegasi | 22 | 56 | 51.32 | 51.28 | — 0.04 | " |
| " | ☽ 's 2d Limb | 23 | 06 | 56.21 | | | " |
| " | γ Piscium | 23 | 08 | 55.97 | 56.03 | + 0.06 | " |
| " | λ Piscium | 23 | 34 | 56.63 | 56.87 | + 0.24 | " |
| " | γ Pegasi | 0 | 05 | 03.78 | 03.64 | — 0.14 | " |
| 15 | ☽ 's 2d Limb | 23 | 54 | 11.67 | | | B |
| " | d Piscium | 0 | 12 | 25.88 | 25.69 | — 0.19 | " |
| " | β Ceti | 0 | 35 | 37.14 | 36.85 | — 0.29 | " |
| 16 | ι Piscium | 23 | 31 | 47.02 | 46.87 | — 0.15 | " |
| " | γ Pegasi | 0 | 05 | 03.69 | 03.69 | 0.00 | " |
| " | d Piscium | 0 | 12 | 25.29 | 25.71 | + 0.42 | " |
| " | ☽ 's 2d Limb | 0 | 43 | 43.79 | | | " |
| " | ε Piscium | 0 | 54 | 42.09 | 42.13 | + 0.04 | " |
| " | $\vartheta^1$ Ceti | 1 | 16 | 04.50 | 04.93 | + 0.43 | " |
| 17 | ☽ 's 2d Limb | 1 | 35 | 47.30 | | | W |
| " | β Arietis | 1 | 45 | 52.08 | 51.99 | — 0.09 | " |
| " | α Arietis | 1 | 58 | 13.36 | 13.09 | — 0.27 | " |
| " | α Ceti | 2 | 53 | 58.06 | 58.13 | + 0.07 | " |
| 18 | ☽ 's 2d Limb | 2 | 31 | 33.22 | | | B |
| " | γ Ceti | 2 | 35 | 03.68 | 03.92 | + 0.24 | " |
| " | ε Arietis | 2 | 50 | 07.98 | 07.49 | — 0.49 | " |
| " | α Ceti | 2 | 53 | 58.54 | 58.16 | — 0.38 | " |
| " | δ Arietis | 3 | 02 | 32.46 | 32.23 | — 0.23 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A.R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1840, Aug. 19 | ε Arietis | 2 | 50 | 07.75 | 07.49 | — 0.26 | B |
| " | α Ceti | 2 | 53 | 57.97 | 58.19 | + 0.22 | " |
| " | δ Arietis | 3 | 02 | 32.36 | 32.27 | — 0.09 | " |
| " | ☽ 's 2d Limb | 3 | 31 | 46.95 | | | " |
| 20 | ☽ 's 2d Limb | 4 | 36 | 20.36 | | | W |
| " | β Orionis | 5 | 06 | 53.18 | 53.08 | — 0.10 | " |
| Sept. 3 | ☽ 's 1st Limb | 16 | 34 | 53.14 | | | B |
| " | $\mu^1$ Sagittarii | 18 | 04 | 15.36 | 15.35 | — 0.01 | " |
| 7 | $h^2$ Sagittarii | 19 | 27 | 02.20 | 02.16 | — 0.04 | " |
| " | 57 Sagittarii | 19 | 42 | 58.23 | 57.83 | — 0.40 | " |
| " | ☽ 's 1st Limb | 20 | 14 | 02.34 | | | " |
| " | π Capricorni | 20 | 18 | 14.15 | 13.58 | — 0.57 | " |
| " | υ Capricorni | 20 | 31 | 00.24 | 00.44 | + 0.20 | " |
| 15 | ε Arietis | 2 | 50 | 08.50 | 08.30 | — 0.20 | " |
| " | α Ceti | 2 | 53 | 59.23 | 58.94 | — 0.29 | " |
| " | ☽ 's 2d Limb | 3 | 13 | 08.61 | | | " |
| " | α Tauri | 4 | 26 | 47.87 | 48.16 | + 0.29 | " |
| Oct. 5 | *c* Sagittarii | 19 | 52 | 52.42 | 52.68 | + 0.26 | W |
| " | $\alpha^2$ Capricorni | 20 | 09 | 13.98 | 13.92 | — 0.06 | " |
| " | $\beta^2$ Capricorni | 20 | 12 | 04.67 | 04.68 | + 0.01 | " |
| " | ☽ 's 1st Limb | 20 | 42 | 52.36 | | | " |
| " | η Capricorni | 20 | 55 | 21.44 | 21.59 | + 0.15 | " |
| " | *s* Capricorni | 21 | 06 | 56.92 | 57.20 | + 0.28 | " |
| " | β Aquarii | 21 | 23 | 11.90 | 11.71 | — 0.19 | " |
| 6 | $\alpha^2$ Capricorni | 20 | 09 | 13.93 | 13.90 | — 0.03 | " |
| " | *s* Capricorni | 21 | 06 | 56.97 | 57.19 | + 0.22 | " |
| " | β Aquarii | 21 | 23 | 11.50 | 11.70 | + 0.20 | " |
| " | ☽ 's 1st Limb | 21 | 33 | 02.31 | | | " |
| " | δ Capricorni | 21 | 38 | 16.19 | 16.14 | — 0.05 | " |
| " | ι Aquarii | 21 | 57 | 51.40 | 51.51 | + 0.11 | " |
| 7 | $\alpha^2$ Capricorni | 20 | 09 | 13.88 | 13.89 | + 0.01 | " |
| " | β Aquarii | 21 | 23 | 11.79 | 11.69 | — 0.10 | " |
| " | δ Capricorni | 21 | 38 | 16.34 | 16.12 | — 0.22 | " |
| " | ι Aquarii | 21 | 57 | 51.52 | 51.50 | — 0.02 | " |
| " | ☽ 's 1st Limb | 22 | 22 | 09.64 | | | " |
| " | η Aquarii | 22 | 27 | 11.92 | 11.95 | + 0.03 | " |
| " | λ Aquarii | 22 | 44 | 19.64 | 19.98 | + 0.34 | " |
| 8 | $\alpha^2$ Capricorni | 20 | 09 | 13.94 | 13.88 | — 0.06 | B |
| " | α Aquarii | 21 | 57 | 37.71 | 37.65 | — 0.06 | " |
| " | ζ Pegasi | 22 | 33 | 32.72 | 32.75 | + 0.03 | " |
| " | η Aquarii | 22 | 27 | 11.73 | 11.94 | + 0.21 | " |
| " | λ Aquarii | 22 | 44 | 20.18 | 19.97 | — 0.21 | " |
| " | Fomalhaut | 22 | 48 | 52.46 | 52.25 | — 0.21 | " |
| " | ☽ 's 1st Limb | 23 | 11 | 05.04 | | | " |
| " | λ Piscium | 23 | 33 | 57.19 | 57.34 | + 0.15 | " |
| 9 | $\varkappa^1$ Piscium | 23 | 18 | 47.92 | 47.98 | + 0.06 | " |
| " | λ Piscium | 23 | 33 | 57.09 | 57.34 | + 0.25 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1840, Oct. 9 | ☽'s 1st Limb | 0 | 00 | 55.44 | | | B |
| “ | B Piscium | 0 | 06 | 49.10 | 48.26 | −0.84 | “ |
| 10 | ζ Pegasi | 22 | 33 | 32.74 | 32.74 | 0.00 | W |
| “ | Fomalhaut | 22 | 48 | 52.32 | 52.24 | −0.08 | “ |
| “ | α Pegasi | 22 | 56 | 51.77 | 51.53 | −0.24 | “ |
| “ | ι Piscium | 23 | 31 | 47.34 | 47.28 | −0.06 | “ |
| “ | B Piscium | 0 | 06 | 48.62 | 48.26 | −0.36 | “ |
| “ | ☽'s 1st Limb | 0 | 52 | 52.44 | | | “ |
| “ | ☽'s 2d Limb | 0 | 55 | 07.92 | | | “ |
| “ | $\vartheta^1$ Ceti | 1 | 16 | 05.55 | 05.87 | +0.32 | “ |
| “ | η Piscium | 1 | 23 | 00.15 | 00.14 | −0.01 | “ |
| 12 | $\vartheta^1$ Ceti | 1 | 16 | 05.90 | 05.89 | −0.01 | B |
| “ | ☽'s 2d Limb | 2 | 59 | 07.19 | | | “ |
| “ | α Ceti | 2 | 53 | 58.73 | 59.49 | −0.24 | “ |
| “ | *g* Arietis | 3 | 14 | 56.25 | 56.63 | +0.38 | “ |
| “ | δ Arietis | 4 | 02 | 33.73 | 33.68 | −0.05 | “ |
| 13 | γ Pegasi | 0 | 05 | 04.42 | 04.28 | −0.14 | W |
| “ | δ Arietis | 3 | 02 | 33.71 | 33.69 | −0.02 | “ |
| “ | *g* Arietis | 3 | 14 | 57.01 | 56.65 | −0.36 | “ |
| “ | η Tauri | 3 | 38 | 03.43 | 03.58 | +0.15 | “ |
| “ | ☽'s 2d Limb | 3 | 54 | 10.24 | | | “ |
| “ | $\upsilon^1$ Tauri | 4 | 16 | 48.75 | 48.51 | −0.24 | “ |
| “ | α Tauri | 4 | 26 | 48.77 | 48.95 | +0.18 | “ |
| “ | τ Tauri | 4 | 32 | 43.22 | 43.24 | +0.02 | “ |
| “ | β Tauri | 5 | 16 | 15.38 | 15.33 | −0.05 | “ |
| 15 | β Tauri | 5 | 16 | 15.46 | 15.41 | −0.05 | “ |
| “ | *l* Aurigæ | 5 | 28 | 26.47 | 26.20 | −0.27 | “ |
| “ | ☽'s 2d Limb | 6 | 09 | 22.90 | | | “ |
| “ | $\mu^1$ Geminorum | 6 | 13 | 20.86 | 20.84 | −0.02 | “ |
| 16 | ☽'s 2d Limb | 7 | 15 | 13.56 | | | B |
| “ | $\alpha^2$ Geminorum | 7 | 24 | 26.65 | 27.00 | +0.35 | “ |
| “ | β Geminorum | 7 | 35 | 35.02 | 34.83 | −0.19 | “ |
| Nov. 1 | ☽'s 1st Limb | 20 | 17 | 10.41 | | | “ |
| “ | γ Capricorni | 21 | 31 | 16.49 | 16.83 | +0.34 | “ |
| “ | ε Pegasi | 21 | 36 | 23.05 | 22.91 | −0.14 | “ |
| “ | δ Capricorni | 21 | 38 | 15.84 | 15.80 | −0.04 | “ |
| 2 | $\alpha^2$ Capricorni | 20 | 10 | 13.75 | 13.50 | −0.25 | W |
| “ | ☽'s 1st Limb | 21 | 10 | 58.93 | | | “ |
| “ | γ Capricorni | 21 | 31 | 16.95 | 16.82 | −0.13 | “ |
| “ | ε Pegasi | 21 | 36 | 23.00 | 22.96 | −0.04 | “ |
| “ | δ Capricorni | 21 | 38 | 16.17 | 15.78 | −0.39 | “ |
| “ | α Aquarii | 21 | 57 | 37.30 | 37.36 | +0.06 | “ |
| 6 | ι Piscium | 23 | 31 | 47.18 | 47.13 | −0.05 | “ |
| “ | η Piscium | 23 | 39 | 46.98 | 46.53 | −0.45 | “ |
| “ | *a* Piscium | 23 | 51 | 09.78 | 09.77 | −0.01 | “ |
| “ | γ Pegasi | 0 | 05 | 04.00 | 04.21 | +0.21 | “ |
| “ | ☽'s 1st Limb | 0 | 26 | 03.90 | | | “ |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1840, Nov. 13 | Procyon | 7 | 30 | 59.50 | 59.39 | —0.11 | B |
| " | β Geminorum | 7 | 35 | 35.62 | 35.84 | +0.22 | " |
| " | ☽'s 2d Limb | 7 | 56 | 24.64 | | | " |
| " | ϑ Cancri | 8 | 22 | 31.98 | 32.10 | +0.12 | " |
| 30 | ☽'s 1st Limb | 21 | 40 | 04.00 | | | " |
| " | α Aquarii | 21 | 57 | 37.16 | 37.02 | —0.14 | " |
| " | ζ Pegasi | 0 | 05 | 03.48 | 04.02 | +0.54 | " |
| " | ι Piscium | 23 | 31 | 47.06 | 46.90 | —0.16 | " |
| Dec. 1 | μ Capricorni | 21 | 44 | 37.30 | 37.24 | —0.06 | " |
| " | 30 Aquarii | 21 | 54 | 54.31 | 54.35 | +0.04 | " |
| " | ☽'s 1st Limb | 22 | 26 | 51.18 | | | " |
| " | λ Aquarii | 22 | 44 | 19.47 | 19.42 | —0.05 | " |
| " | Fomalhaut | 22 | 48 | 51.60 | 51.57 | —0.03 | " |
| " | α Pegasi | 22 | 56 | 51.06 | 51.02 | —0.04 | " |
| 2 | β Aquarii | 21 | 23 | 11.05 | 11.00 | —0.05 | W |
| " | ε Pegasi | 21 | 26 | 22.48 | 22.52 | +0.04 | " |
| " | ϰ Aquarii | 22 | 29 | 30.67 | 31.56 | —0.11 | B |
| " | ζ Pegasi | 22 | 33 | 32.27 | 32.16 | —0.11 | " |
| " | λ Aquarii | 22 | 43 | 19.42 | 19.41 | —0.01 | " |
| " | Fomalhaut | 22 | 48 | 51.34 | 51.56 | +0.22 | " |
| " | ☽'s 2d Limb | 23 | 13 | 31.99 | | | " |
| " | ϰ Piscium | 23 | 18 | 47.51 | 47.53 | +0.02 | " |
| " | λ Piscium | 23 | 33 | 56.62 | 56.94 | +0.32 | " |
| 8 | $\upsilon^1$ Tauri | 4 | 16 | 49.67 | 49.54 | —0.13 | " |
| " | α Tauri | 4 | 26 | 50.05 | 49.99 | —0.06 | " |
| " | τ Tauri | 4 | 32 | 44.28 | 44.36 | +0.08 | " |
| " | ☽'s 1st Limb | 5 | 02 | 19.53 | | | " |
| " | ☽'s 2d Limb | 5 | 04 | 48.30 | | | " |
| " | β Tauri | 5 | 16 | 16.56 | 16.75 | +0.19 | " |
| " | C Tauri | 5 | 43 | 21.87 | 22.16 | +0.29 | " |
| 10 | ε Geminorum | 6 | 34 | 10.70 | 10.88 | +0.18 | W |
| " | ζ Geminorum | 6 | 54 | 42.28 | 42.48 | +0.20 | " |
| " | ☽'s 2d Limb | 7 | 26 | 32.55 | | | " |
| " | Procyon | 7 | 31 | 00.25 | 00.12 | —0.13 | " |
| " | β Geminorum | 7 | 35 | 36.68 | 36.67 | —0.01 | " |
| " | φ Geminorum | 7 | 43 | 47.45 | 47.48 | +0.03 | " |
| 11 | δ Geminorum | 7 | 10 | 39.22 | 39.31 | +0.09 | B |
| " | $\alpha^2$ Geminorum | 7 | 24 | 28.81 | 28.90 | +0.09 | " |
| " | β Geminorum | 7 | 35 | 37.00 | 36.70 | —0.30 | " |
| " | φ Geminorum | 7 | 43 | 47.95 | 47.51 | —0.44 | " |
| " | ☽'s 2d Limb | 8 | 31 | 05.76 | | | " |
| " | δ Cancri | 8 | 35 | 40.69 | 40.06 | —0.63 | " |
| " | $o^2$ Cancri | 8 | 48 | 43.13 | 42.76 | +0.37 | " |
| 14 | *d* Leonis | 10 | 52 | 21.75 | 21.70 | —0.05 | " |
| " | δ Leonis | 11 | 05 | 39.66 | 39.49 | —0.17 | " |
| " | δ Hydræ et Crateris | 11 | 11 | 24.66 | 24.42 | —0.24 | " |
| " | ☽'s 2d Limb | 11 | 13 | 41.43 | | | " |

| Date. | | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|---|
| | | | h. | m. | s. | s. | s. | |
| 1840, Dec. | 14 | τ Leonis | 11 | 19 | 46.46 | 46.30 | — 0.16 | B |
| | " | β Virginis | 11 | 42 | 25.32 | 25.52 | + 0.20 | " |
| | 15 | β Virginis | 11 | 42 | 25.52 | 25.55 | + 0.03 | " |
| | " | ☽'s 2d Limb | 12 | 11 | 41.43 | | | " |
| | 17 | α Virginis | 13 | 16 | 49.46 | 49.45 | — 0.01 | " |
| | " | ☽'s 2d Limb | 13 | 36 | 47.26 | | | " |
| | 18 | ☽'s 2d Limb | 14 | 25 | 59.98 | | | " |
| | " | α Serpentis | 15 | 36 | 25.80 | 25.80 | 0.00 | " |
| | 28 | ☽'s 1st Limb | 22 | 10 | 45.10 | | | W |
| | " | γ Ceti | 2 | 35 | 05.36 | 05.47 | + 0.11 | " |
| 1841, Jan. | 2 | α Arietis | 1 | 58 | 14.44 | 14.36 | — 0.08 | B |
| | " | ϑ Arietis | 2 | 09 | 18.60 | 18.76 | + 0.16 | " |
| | " | ☽'s 1st Limb | 2 | 16 | 04.49 | | | " |
| | " | ψ Arietis | 2 | 23 | 07.07 | 06.71 | — 0.36 | " |
| | " | γ Ceti | 2 | 35 | 05.71 | 05.43 | — 0.28 | " |
| | " | α Ceti | 2 | 53 | 59.74 | 59.91 | + 0.17 | " |
| | " | η Tauri | 3 | 38 | 04.19 | 04.38 | + 0.19 | " |
| | " | F Pleiadum | 3 | 39 | 44.70 | 44.80 | + 0.10 | " |
| | 4 | η Tauri | 3 | 38 | 04.37 | 04.38 | + 0.01 | W |
| | " | $\gamma^1$ Eridani | 3 | 50 | 38.36 | 38.50 | + 0.14 | " |
| | " | $A^1$ Tauri | 3 | 55 | 19.85 | 19.94 | + 0.09 | " |
| | " | $\upsilon^1$ Tauri | 4 | 16 | 50.25 | 49.59 | — 0.66 | " |
| | " | ☽'s 1st Limb | 4 | 23 | 23.40 | | | " |
| | " | α Tauri | 4 | 26 | 50.25 | 50.09 | — 0.16 | " |
| | 30 | ☽'s 1st Limb | 2 | 51 | 51.62 | | | B |
| | " | δ Arietis | 3 | 02 | 34.32 | 33.89 | — 0.43 | " |
| | " | α Tauri | 4 | 26 | 50.08 | 49.91 | + 0.17 | " |
| | " | g Arietis | 3 | 14 | 57.36 | 56.96 | — 0.40 | " |
| | " | β Orionis | 5 | 06 | 55.54 | 55.72 | + 0.18 | " |
| | " | β Tauri | 5 | 16 | 16.92 | 16.90 | — 0.02 | " |
| | " | δ Orionis | 5 | 28 | 10.81 | 10.80 | — 0.01 | " |
| | 31 | $\upsilon^1$ Tauri | 4 | 16 | 49.30 | 49.40 | + 0.10 | " |
| | " | β Tauri | 5 | 16 | 17.08 | 16.89 | — 0.19 | " |
| | " | ☽'s 1st Limb | 5 | 53 | 38.47 | | | " |
| | " | α Tauri | 4 | 26 | 49.97 | 49.90 | — 0.07 | " |
| | " | τ Tauri | 4 | 32 | 44.09 | 44.29 | + 0.20 | " |
| | " | Capella | 5 | 04 | 59.53 | 59.65 | + 0.12 | " |
| | " | Rigel | 5 | 06 | 55.47 | 55.74 | + 0.27 | " |
| | " | δ Orionis | 5 | 23 | 54.97 | 55.05 | + 0.08 | " |
| | " | α Leporis | 5 | 25 | 45.33 | 45.02 | — 0.31 | " |
| | " | ε Orionis | 5 | 28 | 10.57 | 10.79 | + 0.22 | " |
| | " | α Orionis | 5 | 46 | 36.12 | 35.99 | — 0.13 | " |
| Feb. | 2 | α Tauri | 4 | 26 | 49.77 | 49.87 | + 0.10 | W |
| | " | Capella | 5 | 04 | 59.71 | 59.62 | — 0.09 | " |
| | " | Rigel | 5 | 06 | 55.69 | 55.72 | + 0.03 | " |
| | " | β Tauri | 5 | 16 | 16.95 | 16.87 | — 0.08 | " |
| | " | δ Orionis | 5 | 23 | 55.01 | 55.03 | + 0.02 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, Feb. 2 | ε Orionis | 5 | 28 | 10.78 | 10.77 | − 0.01 | W |
| " | ☽'s 1st Limb | 6 | 09 | 19.37 | | | " |
| 3 | μ Geminorum | 6 | 13 | 22.75 | 22.78 | + 0.03 | B |
| " | ε Geminorum | 6 | 36 | 11.36 | 11.37 | + 0.01 | " |
| " | Sirius | 6 | 38 | 10.16 | 10.57 | + 0.41 | " |
| " | ☽'s 1st Limb | 7 | 18 | 02.31 | | | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 29.83 | 29.69 | − 0.14 | " |
| " | Procyon | 7 | 31 | 00.80 | 00.82 | + 0.02 | " |
| " | β Geminorum | 7 | 35 | 37.44 | 37.52 | + 0.08 | " |
| 4 | Procyon | 7 | 31 | 00.91 | 00.82 | − 0.09 | W |
| " | β Geminorum | 7 | 35 | 37.51 | 37.52 | + 0.01 | " |
| " | 15 Argus | 8 | 00 | 48.77 | 48.78 | + 0.01 | " |
| " | ☽'s 1st Limb | 8 | 23 | 34.10 | | | " |
| " | δ Cancri | 8 | 35 | 41.15 | 41.23 | + 0.08 | " |
| " | ε Hydræ | 8 | 38 | 23.70 | 23.67 | − 0.03 | " |
| " | $\alpha^2$ Cancri | 8 | 49 | 49.85 | 49.61 | − 0.24 | " |
| 6 | ο Leonis | 9 | 32 | 42.17 | 42.20 | + 0.03 | B |
| " | α Leonis | 9 | 59 | 56.81 | 56.52 | − 0.29 | " |
| " | ☽'s 2d Limb | 10 | 23 | 26.72 | | | " |
| " | 48 Leonis | 10 | 26 | 32.78 | 32.65 | − 0.13 | " |
| " | *d* Leonis | 10 | 52 | 23.30 | 23.18 | − 0.12 | " |
| 7 | *d* Leonis | 10 | 52 | 23.00 | 23.20 | + 0.20 | " |
| " | δ Leonis | 11 | 05 | 41.12 | 41.12 | 0.00 | " |
| " | ☽'s 2d Limb | 11 | 16 | 34.18 | | | " |
| " | υ Leonis | 11 | 28 | 50.70 | 50.69 | − 0.01 | " |
| " | β Virginis | 11 | 42 | 26.96 | 27.17 | + 0.21 | " |
| 8 | β Virginis | 11 | 40 | 16.72 | | | W |
| " | ☽'s 2d Limb | 12 | 05 | 25.70 | | | " |
| " | η Virginis | 12 | 09 | 38.40 | | | " |
| " | $\gamma^1$ Virginis | 12 | 31 | 29.14 | | | " |
| 12 | α Tauri | 4 | 26 | 49.91 | 49.74 | − 0.17 | " |
| " | Capella | 5 | 04 | 59.18 | 59.44 | + 0.26 | " |
| " | Rigel | 5 | 06 | 55.60 | 55.59 | − 0.01 | " |
| " | β Tauri | 5 | 16 | 16.57 | 16.74 | + 0.17 | " |
| " | α Leporis | 5 | 25 | 44.85 | 44.86 | + 0.01 | " |
| " | α Columbæ | 5 | 33 | 55.33 | 55.33 | 0.00 | " |
| " | α Orionis | 5 | 46 | 35.92 | 35.88 | − 0.04 | " |
| " | ☽'s 2d Limb | 15 | 32 | 39.89 | | | B |
| " | α Serpentis | 15 | 36 | 27.49 | 27.38 | − 0.11 | " |
| " | δ Scorpii | 15 | 50 | 58.04 | 57.61 | − 0.43 | " |
| " | ω Scorpii | 15 | 58 | 07.10 | 06.48 | − 0.62 | " |
| " | α Scorpii | 16 | 19 | 41.09 | 40.94 | − 0.15 | " |
| 28 | α Tauri | 4 | 26 | 49.41 | 49.51 | + 0.10 | " |
| " | ☽'s 1st Limb | 4 | 36 | 39.78 | | | " |
| " | β Orionis | 5 | 06 | 55.45 | 55.32 | − 0.13 | " |
| " | β Tauri | 5 | 16 | 16.41 | 16.48 | + 0.07 | " |
| " | δ Orionis | 5 | 23 | 54.76 | 54.68 | − 0.08 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, Feb. 28 | α Leporis | 5 | 25 | 44.02 | 44.60 | + 0.58 | B |
| " | ε Orionis | 5 | 28 | 10.32 | 10.43 | + 0.11 | " |
| " | α Columbæ | 5 | 33 | 55.99 | 54.99 | — 1.00 | " |
| " | μ Geminorum | 6 | 13 | 22.70 | 22.50 | — 0.20 | " |
| " | Sirius | 6 | 38 | 10.20 | 10.29 | + 0.09 | " |
| March 1 | α Tauri | 4 | 26 | 49.62 | 49.48 | — 0.14 | " |
| " | Capella | 5 | 04 | 58.71 | 59.06 | + 0.35 | " |
| " | β Orionis | 5 | 06 | 55.20 | 55.32 | + 0.12 | " |
| " | β Tauri | 5 | 16 | 16.53 | 16.47 | — 0.06 | " |
| " | δ Orionis | 5 | 23 | 54.94 | 54.67 | — 0.27 | " |
| " | ε Orionis | 5 | 28 | 10.61 | 10.42 | — 0.19 | " |
| " | α Columbæ | 5 | 33 | 55.03 | 54.97 | — 0.06 | " |
| " | ϰ Aurigæ | 6 | 05 | 16.84 | 16.90 | + 0.06 | " |
| " | ☽'s 1st Limb | 5 | 42 | 56.86 | | | " |
| 2 | Capella | 5 | 04 | 59.11 | 59.04 | — 0.07 | " |
| " | β Tauri | 5 | 16 | 16.67 | 16.45 | — 0.22 | " |
| " | δ Orionis | 5 | 23 | 54.37 | 54.65 | + 0.28 | " |
| " | α Leporis | 5 | 25 | 44.33 | 44.56 | + 0.23 | " |
| " | ε Orionis | 5 | 28 | 10.22 | 10.40 | + 0.18 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 29.58 | 29.50 | — 0.08 | " |
| " | α Orionis | 5 | 46 | 35.84 | 35.63 | — 0.21 | " |
| " | ϰ Aurigæ | 6 | 05 | 16.72 | 16.90 | + 0.18 | " |
| " | ☽'s 1st Limb | 6 | 49 | 42.96 | | | " |
| " | C Tauri | 5 | 43 | 21.71 | 22.02 | + 0.31 | " |
| " | δ Geminorum | 7 | 10 | 39.82 | 39.77 | — 0.05 | " |
| 4 | α Tauri | 4 | 26 | 49.48 | 49.43 | — 0.05 | " |
| " | Sirius | 6 | 38 | 10.32 | 10.23 | — 0.09 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 29.62 | 29.46 | — 0.16 | " |
| " | Procyon | 7 | 31 | 00.57 | 00.63 | + 0.06 | " |
| " | β Geminorum | 7 | 35 | 37.43 | 37.33 | — 0.10 | " |
| " | 15 Argus | 8 | 00 | 48.27 | 48.59 | + 0.32 | " |
| " | λ Cancri | 8 | 11 | 07.01 | 06.63 | — 0.38 | " |
| " | ϑ Cancri | 8 | 22 | 33.96 | 33.95 | — 0.01 | " |
| " | ☽'s 1st Limb | 8 | 55 | 45.76 | | | " |
| " | q Cancri | 9 | 10 | 08.52 | 08.51 | — 0.01 | " |
| " | ξ Leonis | 9 | 23 | 24.56 | 24.92 | + 0.36 | " |
| 5 | δ Orionis | 5 | 23 | 54.62 | 54.58 | — 0.04 | W |
| " | α Leporis | 5 | 25 | 44.36 | 44.48 | + 0.12 | " |
| " | ε Orionis | 5 | 28 | 10.30 | 10.33 | + 0.03 | " |
| " | α Columbæ | 5 | 33 | 54.86 | 54.86 | 0.00 | " |
| " | α Orionis | 5 | 46 | 35.74 | 35.58 | — 0.16 | " |
| " | ε Hydræ | 8 | 39 | 23.40 | 23.68 | + 0.28 | " |
| " | ι Urs. Maj. | 8 | 48 | 21.10 | 21.09 | — 0.01 | " |
| " | α Hydræ | 9 | 19 | 48.80 | 48.87 | + 0.07 | " |
| " | ξ Leonis | 9 | 23 | 25.00 | 24.92 | — 0.08 | " |
| " | ε Leonis | 9 | 36 | 52.03 | 51.85 | — 0.18 | " |
| " | ☽'s 1st Limb | 9 | 53 | 11.98 | | | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A.R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, March 5 | α Leonis | 9 | 59 | 56.56 | 56.70 | + 0.14 | W |
| 13 | α Scorpii | 16 | 19 | 41.95 | 42.10 | + 0.15 | B |
| " | ☽'s 2d Limb | 16 | 59 | 49.77 | | | " |
| " | α Herculis | 17 | 07 | 25.55 | 25.41 | — 0.14 | " |
| " | ϑ Ophiuchi | 17 | 12 | 16.87 | 16.66 | — 0.21 | " |
| " | $e^2$ Ophiuchi | 17 | 21 | 45.13 | 44.74 | — 0.39 | " |
| " | α Lyræ | 18 | 31 | 33.29 | 33.72 | + 0.43 | " |
| 14 | ☽'s 2d Limb | 17 | 55 | 24.28 | | | " |
| " | α Lyræ | 18 | 31 | 33.68 | 33.76 | + 0.08 | " |
| " | Altair | 19 | 43 | 02.14 | 02.06 | — 0.08 | " |
| 15 | β Orionis | 5 | 06 | 55.05 | 55.08 | + 0.03 | " |
| " | β Tauri | 5 | 16 | 16.15 | 16.22 | + 0.07 | " |
| " | δ Orionis | 5 | 23 | 54.37 | 54.43 | + 0.06 | " |
| " | α Leporis | 5 | 25 | 44.29 | 44.31 | + 0.02 | " |
| " | ε Orionis | 5 | 28 | 10.17 | 10.18 | + 0.01 | " |
| 30 | Sirius | 6 | 38 | 09.95 | 09.79 | — 0.16 | W |
| " | ξ Geminorum | 6 | 54 | 42.73 | 42.37 | — 0.36 | " |
| " | δ Geminorum | 7 | 10 | 39.39 | 39.32 | — 0.07 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 28.69 | 29.03 | + 0.34 | " |
| " | ☽'s 1st Limb | 7 | 33 | 15.55 | | | " |
| " | β Geminorum | 7 | 35 | 36.99 | 36.92 | — 0.07 | " |
| April 1 | Capella | 5 | 04 | 58.43 | 58.35 | — 0.08 | " |
| " | β Orionis | 5 | 06 | 54.63 | 54.79 | + 0.16 | " |
| " | ε Orionis | 5 | 28 | 09.95 | 09.90 | + 0.05 | " |
| " | ☽'s 1st Limb | 9 | 31 | 11.50 | | | " |
| " | α Leonis | 9 | 59 | 56.61 | 56.58 | — 0.03 | " |
| 3 | ε Leonis | 9 | 36 | 51.65 | 51.64 | — 0.01 | " |
| " | χ Leonis | 10 | 56 | 51.29 | 51.31 | + 0.02 | " |
| " | δ Leonis | 11 | 15 | 41.53 | 41.50 | — 0.03 | " |
| " | ☽'s 1st Limb | 11 | 16 | 43.18 | | | " |
| " | β Virginis | 11 | 42 | 27.66 | 27.73 | + 0.07 | " |
| 14 | α Cygni | 20 | 36 | 00.86 | 01.21 | + 0.35 | " |
| " | ☽'s 2d Limb | 21 | 01 | 52.88 | | | " |
| " | α Cephei | 21 | 14 | 45.85 | 45.75 | — 0.10 | " |
| " | α Orionis | 5 | 46 | 35.29 | 34.95 | — 0.34 | " |
| 28 | ☽'s 1st Limb | 9 | 13 | 56.79 | | | " |
| " | ξ Leonis | 9 | 23 | 24.27 | 24.36 | + 0.09 | " |
| " | o Leonis | 9 | 32 | 41.76 | 41.78 | + 0.02 | " |
| " | ε Leonis | 9 | 36 | 51.36 | 51.29 | — 0.07 | " |
| " | α Leonis | 9 | 59 | 56.32 | 56.40 | + 0.08 | " |
| May 3 | β Leonis | 11 | 40 | 59.51 | 59.44 | — 0.07 | " |
| " | β Corvi | 12 | 26 | 05.44 | 05.48 | + 0.04 | " |
| " | ψ Virginis | 12 | 46 | 08.21 | 08.36 | + 0.15 | " |
| " | 12 Can. Ven. | 12 | 48 | 38.13 | 38.24 | + 0.11 | " |
| " | ϑ Virginis | 13 | 01 | 46.62 | 46.39 | — 0.23 | " |
| " | α Virginis | 13 | 16 | 52.05 | 52.36 | + 0.31 | " |
| " | ☽'s 1st Limb | 13 | 29 | 00.52 | | | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A.R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, May 3 | x Virginis | 13 | 41 | 17.40 | 17.35 | — 0.05 | W |
| " | η Bootis | 13 | 47 | 09.95 | 09.88 | — 0.07 | " |
| 6 | β Libræ | 15 | 08 | 30.32 | 30.59 | + 0.27 | " |
| " | α Cor. Bor. | 15 | 28 | 00.60 | 00.41 | — 0.19 | " |
| " | κ Libræ | 15 | 32 | 50.84 | 51.07 | + 0.23 | " |
| " | α Serpentis | 15 | 36 | 29.54 | 29.36 | — 0.18 | " |
| " | π Scorpii | 15 | 49 | 17.98 | 18.14 | + 0.16 | " |
| " | $\beta^1$ Scorpii | 15 | 56 | 15.52 | 15.28 | — 0.24 | " |
| " | ☽'s 2d Limb | 16 | 12 | 51.02 | | | " |
| " | Antares | 16 | 19 | 43.54 | 43.52 | — 0.02 | " |
| 8 | β Leonis | 11 | 40 | 59.45 | 59.40 | — 0.05 | " |
| " | γ Urs. Maj. | 11 | 45 | 29.87 | 29.98 | + 0.11 | " |
| " | β Corvi | 12 | 26 | 05.45 | 05.46 | + 0.01 | " |
| " | 12 Can. Ven. | 12 | 48 | 38.05 | 38.19 | + 0.14 | " |
| " | α Herculis | 17 | 07 | 26.99 | 26.82 | — 0.17 | B |
| " | 3 Sagittarii | 17 | 37 | 36.91 | 36.60 | — 0.31 | " |
| " | ☽'s 2d Limb | 18 | 05 | 20.55 | | | " |
| " | λ Sagittarii | 18 | 18 | 12.62 | 12.70 | + 0.08 | " |
| " | φ Ophiuchi | 18 | 35 | 46.55 | 46.44 | — 0.11 | " |
| 11 | α Cephei | 21 | 14 | 47.15 | 47.15 | 0.00 | " |
| " | ☽'s 2d Limb | 20 | 41 | 49.80 | | | " |
| " | Fomalhaut | 22 | 48 | 52.59 | 52.59 | 0.00 | " |
| 28 | Procyon | 7 | 30 | 59.19 | 59.54 | + 0.35 | W |
| " | α Hydræ | 9 | 19 | 47.86 | 47.91 | + 0.05 | " |
| " | α Leonis | 9 | 59 | 55.93 | 56.04 | + 0.11 | " |
| " | α Urs. Maj. | 10 | 53 | 55.09 | 55.01 | — 0.08 | " |
| " | δ Leonis | 11 | 05 | 41.39 | 40.98 | — 0.41 | " |
| " | ☽'s 1st Limb | 11 | 33 | 45.74 | | | " |
| " | β Virginis | 11 | 42 | 27.39 | 27.41 | + 0.02 | " |
| " | γ Urs. Maj. | 11 | 45 | 29.75 | 29.52 | — 0.23 | " |
| 31 | α Leonis | 9 | 59 | 56.04 | 55.90 | — 0.14 | " |
| " | β Leonis | 11 | 40 | 59.04 | 59.19 | + 0.15 | " |
| " | β Corvi | 12 | 26 | 05.38 | 05.31 | — 0.07 | " |
| " | 12 Can. Ven. | 12 | 48 | 37.94 | 37.95 | + 0.01 | " |
| " | ☽'s 1st Limb | 14 | 03 | 09.87 | | | " |
| June 1 | 12 Can. Ven. | 12 | 48 | 37.79 | 37.94 | + 0.15 | " |
| " | Spica | 13 | 16 | 52.43 | 52.30 | — 0.13 | " |
| " | η Bootis | 13 | 47 | 09.94 | 09.83 | — 0.11 | " |
| " | α Bootis | 14 | 08 | 27.45 | 27.65 | + 0.20 | " |
| " | λ Virginis | 14 | 10 | 34.61 | 34.26 | — 0.35 | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 08.94 | 08.86 | — 0.08 | " |
| " | ☽'s 1st Limb | 14 | 55 | 47.58 | | | " |
| " | $\iota^1$ Libræ | 15 | 03 | 13.70 | 13.63 | — 0.07 | " |
| " | β Libræ | 15 | 08 | 30.70 | 30.78 | + 0.08 | " |
| 2 | $\iota^1$ Libræ | 15 | 03 | 13.82 | 13.63 | — 0.19 | " |
| " | β Libræ | 15 | 08 | 30.64 | 30.78 | + 0.14 | " |
| " | $\gamma^1$ Libræ | 15 | 26 | 41.60 | 41.84 | + 0.24 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A.R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, June 2 | $\alpha$ Serpentis | 15 | 36 | 29.53 | 29.60 | + 0.07 | W |
| “ | ☽'s 1st Limb | 15 | 50 | 21.18 | | | “ |
| “ | $\beta^1$ Scorpii | 15 | 56 | 15.55 | 15.63 | + 0.08 | “ |
| “ | $\delta$ Ophiuchi | 16 | 06 | 03.97 | 04.54 | + 0.57 | “ |
| 3 | $\eta$ Urs. Maj. | 13 | 41 | 19.30 | 19.35 | + 0.05 | “ |
| “ | $\eta$ Bootis | 13 | 47 | 09.92 | 09.82 | — 0.10 | “ |
| “ | $\beta$ Libræ | 15 | 08 | 30.77 | 30.79 | + 0.02 | “ |
| “ | $\alpha$ Cor. Bor. | 15 | 28 | 00.45 | 00.58 | + 0.13 | “ |
| “ | $\beta^1$ Scorpii | 15 | 56 | 15.63 | 15.63 | 0.00 | “ |
| “ | Antares | 16 | 19 | 44.04 | 43.93 | — 0.11 | “ |
| “ | ☽'s 1st Limb | 16 | 46 | 15.98 | | | “ |
| “ | ☽'s 2d Limb | 16 | 48 | 35.22 | | | “ |
| “ | $\eta$ Ophiuchi | 17 | 01 | 19.38 | 19.51 | + 0.13 | “ |
| “ | $\alpha$ Herculis | 17 | 07 | 27.24 | 27.23 | — 0.01 | “ |
| “ | $\vartheta$ Ophiuchi | 17 | 12 | 18.84 | 18.82 | — 0.02 | “ |
| “ | $\alpha$ Ophiuchi | 17 | 27 | 36.52 | 36.54 | + 0.02 | “ |
| 6 | $\delta$ Aquilæ | 19 | 17 | 31.94 | 31.96 | + 0.02 | B |
| “ | $h^2$ Sagittarii | 19 | 27 | 05.57 | 05.37 | — 0.20 | “ |
| “ | ☽'s 2d Limb | 19 | 32 | 56.64 | | | “ |
| “ | $\gamma$ Aquilæ | 19 | 38 | 44.81 | 44.95 | + 0.14 | “ |
| “ | $\alpha$ Aquilæ | 19 | 43 | 04.57 | 04.48 | — 0.09 | “ |
| “ | $\beta$ Aquilæ | 19 | 47 | 33.26 | 33.17 | — 0.09 | “ |
| 26 | 12 Can. Ven. | 12 | 48 | 37.93 | 37.65 | — 0.28 | W |
| “ | ☽'s 1st Limb | 12 | 56 | 53.44 | | | “ |
| “ | Spica | 13 | 16 | 52.14 | 52.13 | — 0.01 | “ |
| “ | $\eta$ Urs. Maj. | 13 | 41 | 18.94 | 18.91 | — 0.03 | “ |
| “ | Arcturus | 14 | 08 | 27.64 | 27.53 | — 0.11 | “ |
| “ | $\varepsilon$ Bootis | 14 | 38 | 05.67 | 05.60 | — 0.07 | “ |
| “ | $\alpha^2$ Libræ | 14 | 42 | 08.62 | 08.82 | + 0.20 | “ |
| 28 | $\alpha$ Bootis | 14 | 08 | 27.73 | 27.51 | — 0.22 | “ |
| “ | ☽'s 1st Limb | 14 | 39 | 19.32 | | | “ |
| “ | $\alpha^2$ Libræ | 14 | 42 | 08.89 | 08.82 | — 0.07 | “ |
| “ | 20 Libræ | 14 | 54 | 50.08 | 50.45 | + 0.37 | B |
| “ | $\iota^1$ Libræ | 15 | 03 | 13.57 | 13.61 | + 0.04 | “ |
| “ | $\beta$ Libræ | 15 | 08 | 30.79 | 30.79 | 0.00 | “ |
| “ | $\alpha$ Cor. Bor. | 15 | 28 | 00.50 | 00.50 | 0.00 | “ |
| 29 | $\alpha$ Cor. Bor. | 15 | 28 | 00.66 | 00.49 | — 0.17 | W |
| “ | ☽'s 1st Limb | 15 | 32 | 48.38 | | | “ |
| “ | $\alpha$ Serpentis | 15 | 36 | 29.39 | 29.62 | + 0.23 | “ |
| “ | $\beta$ Scorpii | 15 | 41 | 29.01 | 29.41 | + 0.40 | “ |
| “ | Antares | 16 | 19 | 44.17 | 44.12 | — 0.05 | “ |
| 30 | $\alpha$ Scorpii | 16 | 19 | 44.12 | 44.12 | 0.00 | B |
| “ | ☽'s 1st Limb | 16 | 27 | 57.26 | | | “ |
| July 1 | ☽'s 1st Limb | 17 | 23 | 50.35 | | | W |
| “ | D Ophiuchi | 17 | 33 | 58.23 | 58.55 | + 0.32 | “ |
| “ | $\beta$ Libræ | 15 | 08 | 30.66 | 30.76 | + 0.10 | “ |
| “ | $\alpha$ Cor. Bor. | 15 | 28 | 00.59 | 00.47 | — 0.12 | “ |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A.R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, July 1 | $\alpha$ Serpentis | 15 | 36 | 29.71 | 29.60 | — 0.11 | W |
| " | $\delta$ Ophiuchi | 16 | 06 | 04.73 | 04.63 | — 0.10 | " |
| " | $\varepsilon$ Scorpii | 16 | 26 | 03.78 | 03.80 | + 0.02 | " |
| " | Antares | 16 | 19 | 43.98 | 44.12 | + 0.14 | " |
| 2 | $\alpha$ Cor. Bor. | 15 | 28 | 00.48 | 00.46 | — 0.02 | B |
| " | $\alpha$ Serpentis | 15 | 39 | 29.62 | 29.60 | — 0.02 | " |
| " | $\beta$ Scorpii | 15 | 56 | 15.69 | 15.72 | + 0.03 | " |
| " | $\delta$ Ophiuchi | 16 | 06 | 04.59 | 04.62 | + 0.03 | " |
| " | $\alpha$ Herculis | 17 | 07 | 27.46 | 27.42 | — 0.04 | " |
| " | $\alpha$ Ophiuchi | 17 | 27 | 36.79 | 36.78 | — 0.01 | " |
| " | D Ophiuchi | 17 | 33 | 58.81 | 58.55 | — 0.26 | " |
| " | 3 Sagittarii | 17 | 37 | 38.00 | 37.76 | — 0.24 | " |
| " | ☽ 's 1st Limb | 18 | 19 | 13.27 | | | " |
| " | $\varphi$ Sagittarii | 18 | 35 | 47.69 | 47.71 | + 0.02 | " |
| " | $\sigma$ Sagittarii | 18 | 45 | 29.12 | 28.67 | — 0.45 | " |
| 8 | $\eta$ Aquarii | 22 | 27 | 14.30 | 14.40 | + 0.10 | " |
| " | $\zeta$ Pegasi | 22 | 33 | 35.12 | 35.10 | — 0.02 | " |
| " | Fomalhaut | 22 | 48 | 54.52 | 54.59 | + 0.07 | " |
| " | $\alpha$ Pegasi | 22 | 56 | 53.64 | 53.70 | + 0.06 | " |
| " | $\varkappa^1$ Piscium | 23 | 18 | 50.15 | 50.02 | — 0.13 | " |
| " | ☽ 's 2d Limb | 23 | 11 | 56.35 | | | " |
| " | $\iota$ Piscium | 23 | 31 | 49.44 | 49.22 | — 0.22 | " |
| " | $\alpha$ Andromedæ | 0 | 0 | 13.49 | 13.41 | — 0.08 | " |
| 10 | $\alpha$ Andromedæ | 0 | 0 | 13.45 | 13.48 | + 0.03 | " |
| " | $\gamma$ Pegasi | 0 | 05 | 06.21 | 06.06 | — 0.15 | " |
| " | $\alpha$ Cassiopeæ | 0 | 31 | 33.67 | 33.81 | + 0.14 | " |
| " | ☽ 's 2d Limb | 0 | 44 | 04.92 | | | " |
| 11 | $\alpha$ Cassiopeæ | 0 | 31 | 33.90 | 33.90 | 0.00 | " |
| " | $\beta$ Ceti | 0 | 35 | 39.02 | 39.03 | — 0.01 | " |
| " | ☽ 's 2d Limb | 1 | 34 | 08.00 | | | " |
| 22 | ☽ 's 1st Limb | 11 | 47 | 13.40 | | | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 08.34 | 08.61 | + 0.27 | " |
| " | $\beta$ Libræ | 15 | 08 | 30.70 | 30.61 | — 0.09 | " |
| " | $\alpha$ Cor. Bor. | 15 | 28 | 00.28 | 00.24 | — 0.04 | " |
| " | $\alpha$ Serpentis | 15 | 36 | 29.59 | 29.45 | — 0.14 | " |
| 26 | $\beta$ Libræ | 15 | 08 | 30.58 | 30.56 | — 0.02 | " |
| " | ☽ 's 1st Limb | 15 | 15 | 23.99 | | | " |
| " | $\beta^1$ Scorpii | 15 | 56 | 15.52 | 15.47 | — 0.05 | " |
| " | $\delta$ Ophiuchi | 16 | 06 | 04.48 | 04.49 | + 0.01 | " |
| " | $\alpha$ Scorpii | 16 | 19 | 43.90 | 44.00 | + 0.10 | " |
| 27 | $\varepsilon$ Bootis | 14 | 38 | 05.07 | 05.20 | + 0.13 | " |
| " | $\alpha$ Cor. Bor. | 15 | 28 | 00.28 | 00.18 | — 0.10 | " |
| " | $\alpha$ Serpentis | 15 | 36 | 29.44 | 29.41 | — 0.03 | " |
| " | $\pi$ Scorpii | 15 | 49 | 18.28 | 18.38 | + 0.10 | " |
| " | $\beta^1$ Scorpii | 15 | 56 | 15.82 | 15.58 | — 0.24 | " |
| " | $\delta$ Ophiuchi | 16 | 06 | 04.53 | 04.48 | — 0.05 | " |
| " | ☽ 's 1st Limb | 16 | 10 | 18.16 | | | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A.R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, July 27 | Antares | 16 | 19 | 43.66 | 43.99 | + 0.33 | B |
| 29 | $\vartheta$ Ophiuchi | 17 | 12 | 18.81 | 19.09 | + 0.28 | “ |
| “ | $\alpha$ Ophiuchi | 17 | 27 | 36.73 | 36.73 | 0.00 | “ |
| “ | D Ophiuchi | 17 | 33 | 58.09 | 58.34 | + 0.25 | “ |
| “ | 3 Sagittarii | 17 | 37 | 37.63 | 37.61 | — 0.02 | “ |
| “ | ☽ 's 1st Limb | 18 | 01 | 27.48 | | | “ |
| 30 | $\delta$ Ophiuchi | 16 | 06 | 04.48 | 04.45 | — 0.03 | “ |
| “ | $\sigma$ Scorpii | 16 | 11 | 35.66 | 35.85 | + 0.19 | “ |
| “ | $\alpha$ Scorpii | 16 | 19 | 43.95 | 43.96 | + 0.01 | “ |
| “ | $\alpha$ Herculis | 17 | 07 | 27.42 | 27.31 | — 0.11 | “ |
| “ | $\vartheta$ Ophiuchi | 17 | 12 | 19.10 | 19.09 | — 0.01 | “ |
| “ | 3 Sagittarii | 17 | 37 | 37.81 | 37.60 | — 0.21 | “ |
| “ | $\mu^1$ Sagittarii | 18 | 04 | 19.41 | 19.57 | + 0.16 | “ |
| “ | ☽ 's 1st Limb | 18 | 55 | 43.13 | | | “ |
| August 1 | $\delta$ Ophiuchi | 16 | 06 | 04.68 | 04.43 | — 0.25 | “ |
| “ | $\alpha$ Scorpii | 16 | 19 | 44.09 | 43.94 | — 0.15 | “ |
| “ | $\beta$ Lyræ | 18 | 44 | 16.04 | 15.93 | — 0.11 | “ |
| “ | $\gamma$ Aquilæ | 19 | 38 | 45.72 | 45.74 | + 0.02 | “ |
| “ | $\alpha$ Aquilæ | 19 | 43 | 05.02 | 05.28 | + 0.26 | “ |
| “ | $h^2$ Sagittarii | 19 | 27 | 06.08 | 06.28 | + 0.20 | “ |
| “ | $\pi$ Sagittarii | 19 | 00 | 22.78 | 22.84 | + 0.06 | “ |
| “ | $\beta$ Aquilæ | 19 | 47 | 33.94 | 34.00 | + 0.06 | “ |
| “ | $c$ Sagittarii | 19 | 52 | 57.14 | 57.19 | + 0.05 | “ |
| “ | $\alpha^2$ Capricorni | 20 | 09 | 17.87 | 17.91 | + 0.04 | “ |
| “ | $\beta^2$ Capricorni | 20 | 12 | 08.63 | 08.72 | + 0.09 | “ |
| “ | ☽ 's 1st Limb | 20 | 37 | 38.36 | | | “ |
| “ | ☽ 's 2d Limb | 20 | 39 | 46.90 | | | “ |
| 2 | $\alpha$ Lyræ | 18 | 31 | 36.44 | 36.47 | + 0.03 | “ |
| “ | $c$ Sagittarii | 19 | 52 | 57.37 | 57.19 | — 0.18 | “ |
| “ | $\alpha^2$ Capricorni | 20 | 09 | 17.85 | 17.91 | + 0.06 | “ |
| “ | $\beta$ Lyræ | 18 | 44 | 15.40 | 15.92 | + 0.52 | “ |
| “ | $\pi$ Sagittarii | 19 | 00 | 22.78 | 22.84 | + 0.06 | “ |
| “ | $\beta^2$ Capricorni | 20 | 12 | 08.55 | 08.72 | + 0.17 | “ |
| “ | $\beta$ Aquarii | 21 | 23 | 15.26 | 15.16 | — 0.10 | “ |
| “ | $\mu$ Capricorni | 21 | 44 | 41.10 | 41.38 | + 0.28 | “ |
| “ | ☽ 's 2d Limb | 21 | 27 | 13.99 | | | “ |
| 3 | $\nu$ Aquarii | 21 | 00 | 59.61 | 59.96 | + 0.35 | “ |
| “ | $\zeta$ Cygni | 21 | 06 | 13.94 | 13.94 | 0.00 | “ |
| “ | $\nu$ Capricorni | 21 | 31 | 21.07 | 20.76 | — 0.31 | “ |
| “ | $\mu$ Capricorni | 21 | 44 | 41.92 | 41.38 | — 0.54 | “ |
| “ | ☽ 's 2d Limb | 22 | 13 | 57.58 | | | “ |
| “ | $\eta$ Aquarii | 22 | 27 | 15.20 | 14.99 | — 0.21 | “ |
| 9 | $\gamma$ Arietis | 1 | 44 | 52.53 | 52.18 | — 0.35 | “ |
| “ | $\alpha$ Arietis | 1 | 58 | 16.51 | 16.51 | 0.00 | “ |
| “ | $\vartheta^1$ Arietis | 2 | 09 | 20.81 | 20.81 | 0.00 | “ |
| “ | ☽ 's 2d Limb | 3 | 04 | 19.75 | | | “ |
| 23 | ☽ 's 1st Limb | 15 | 50 | 31.96 | | | “ |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, Aug. 23 | δ Ophiuchi | 16 | 06 | 04.20 | 04.15 | — 0.05 | B |
| " | Antares | 16 | 19 | 43.60 | 43.64 | + 0.04 | " |
| " | $A^1$ Ophiuchi | 17 | 05 | 38.14 | 38.59 | + 0.45 | " |
| " | ϑ Ophiuchi | 17 | 12 | 18.82 | 18.80 | — 0.02 | " |
| " | α Ophiuchi | 17 | 27 | 36.38 | 36.45 | + 0.07 | " |
| " | $\gamma^2$ Sagittarii | 17 | 55 | 40.18 | 40.26 | + 0.08 | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 19.46 | 19.38 | — 0.08 | " |
| 25 | α Ophiuchi | 17 | 27 | 36.23 | 36.42 | + 0.19 | W |
| " | ☽'s 1st Limb | 17 | 42 | 38.68 | | | " |
| " | γ Draconis | 17 | 52 | 57.31 | 57.24 | — 0.07 | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 19.18 | 19.35 | + 0.17 | " |
| " | γ Aquilæ | 19 | 38 | 45.88 | 45.66 | — 0.22 | " |
| " | α Aquilæ | 19 | 43 | 05.28 | 05.23 | — 0.05 | " |
| " | β Aquilæ | 19 | 47 | 33.96 | 33.95 | — 0.01 | " |
| Sept. 1 | ☽'s 2d Limb | 23 | 28 | 16.07 | | | B |
| " | ω Piscium | 23 | 51 | 12.81 | 12.96 | + 0.15 | " |
| " | α Andromedæ | 0 | 00 | 14.89 | 14.81 | — 0.08 | " |
| " | α Cassiopeæ | 0 | 31 | 35.99 | 35.82 | — 0.17 | " |
| " | β Ceti | 0 | 35 | 40.57 | 40.41 | — 0.16 | " |
| " | δ Piscium | 0 | 40 | 30.49 | 30.30 | — 0.19 | " |
| " | ε Piscium | 0 | 55 | 46.00 | 45.85 | — 0.15 | " |
| " | ϑ Ceti | 1 | 16 | 08.29 | 08.52 | + 0.23 | " |
| 2 | ☽'s 2d Limb | 0 | 14 | 06.41 | | | " |
| " | α Cassiopeæ | 0 | 31 | 35.82 | 35.84 | + 0.02 | " |
| " | β Ceti | 0 | 35 | 39.82 | 40.43 | + 0.61 | " |
| " | δ Piscium | 0 | 40 | 30.07 | 30.31 | + 0.24 | " |
| " | ϑ Ceti | 1 | 16 | 08.29 | 08.54 | + 0.25 | " |
| " | η Piscium | 1 | 23 | 03.53 | 03.05 | — 0.48 | " |
| " | α Arietis | 1 | 58 | 17.44 | 17.20 | — 0.24 | " |
| 3 | ☽'s 2d Limb | 1 | 01 | 43.53 | | | " |
| " | ϑ Ceti | 1 | 16 | 08.65 | 08.56 | — 0.09 | " |
| " | α Arietis | 1 | 58 | 17.27 | 17.24 | — 0.03 | " |
| " | $\vartheta^1$ Arietis | 2 | 09 | 21.22 | 21.51 | + 0.29 | " |
| " | ε Arietis | 2 | 50 | 11.48 | 11.69 | + 0.21 | " |
| " | α Ceti | 2 | 54 | 01.88 | 02.00 | + 0.12 | " |
| " | δ Arietis | 3 | 02 | 36.75 | 36.44 | — 0.31 | " |
| " | α Persei | 3 | 13 | 04.68 | 04.63 | — 0.05 | " |
| 7 | $A^1$ Tauri | 3 | 55 | 21.59 | 21.83 | + 0.24 | " |
| " | $\upsilon^1$ Tauri | 4 | 16 | 51.49 | 51.31 | — 0.18 | " |
| " | α Tauri | 4 | 26 | 51.57 | 51.63 | + 0.06 | " |
| " | ☽'s 2d Limb | 4 | 47 | 14.25 | | | " |
| " | Capella | 5 | 05 | 01.21 | 01.27 | + 0.06 | " |
| " | β Tauri | 5 | 16 | 18.34 | 18.23 | — 0.11 | " |
| 20 | ☽'s 1st Limb | 16 | 23 | 57.83 | | | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 18.98 | 18.96 | — 0.02 | " |
| " | δ Sagittarii | 18 | 10 | 53.03 | 52.84 | — 0.19 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, Sept. 20 | β Lyræ | 18 | 44 | 15.14 | 15.15 | + 0.01 | B |
| “ | $\varrho^1$ Sagittarii | 19 | 12 | 30.84 | 30.96 | + 0.12 | “ |
| “ | δ Aquilæ | 19 | 17 | 32.26 | 32.25 | — 0.01 | “ |
| “ | $h^2$ Sagittarii | 19 | 27 | 05.54 | 05.90 | + 0.36 | “ |
| 21 | η Ophiuchi | 17 | 01 | 18.36 | 18.97 | + 0.61 | “ |
| “ | ☽'s 1st Limb | 17 | 20 | 58.17 | | | “ |
| “ | δ Aquilæ | 19 | 17 | 32.23 | 32.24 | + 0.01 | “ |
| “ | $h^2$ Sagittarii | 19 | 27 | 06.04 | 05.91 | — 0.13 | “ |
| “ | γ Aquilæ | 19 | 38 | 45.12 | 45.35 | + 0.23 | “ |
| “ | β Aquilæ | 19 | 47 | 33.75 | 33 67 | — 0.08 | “ |
| “ | $\alpha^2$ Capricorni | 20 | 09 | 17.96 | 17.70 | — 0.26 | “ |
| “ | υ Capricorni | 20 | 31 | 03.72 | 03.97 | + 0.25 | “ |
| “ | α Cygni | 20 | 37 | 03 00 | 03.75 | + 0.75 | “ |
| 25 | β Aquilæ | 19 | 47 | 33.65 | 33.60 | — 0.05 | W |
| “ | $\alpha^2$ Capricorni | 20 | 09 | 17.47 | 17.65 | + 0.18 | “ |
| “ | β Capricorni | 20 | 12 | 08.35 | 08.46 | + 0.11 | “ |
| “ | γ Capricorni | 20 | 31 | 03.98 | 03.93 | — 0.05 | “ |
| “ | α Cygni | 20 | 36 | 03.80 | 03.66 | — 0.14 | “ |
| “ | ☽'s 1st Limb | 20 | 51 | 17.04 | | | “ |
| “ | ζ Pegasi | 22 | 33 | 35.60 | 36.06 | + 0.46 | “ |
| 26 | γ Aquilæ | 19 | 38 | 45.18 | 45.27 | + 0.09 | “ |
| “ | α Aquilæ | 19 | 43 | 04.74 | 04.85 | + 0.11 | “ |
| “ | β Aquilæ | 19 | 47 | 33.58 | 33.54 | — 0.04 | “ |
| “ | $\alpha^2$ Capricorni | 20 | 09 | 17.68 | 17.64 | — 0.04 | “ |
| “ | ζ Cygni | 21 | 06 | 13.71 | 13.75 | + 0.04 | “ |
| “ | c Capricorni | 21 | 13 | 27.67 | 27.52 | — 0.15 | “ |
| “ | β Aquarii | 21 | 23 | 15.36 | 15.21 | — 0.15 | “ |
| “ | ε Pegasi | 21 | 36 | 26.55 | 26.54 | — 0.01 | “ |
| “ | ☽'s 1st Limb | 21 | 40 | 22.86 | | | “ |
| “ | ι Aquarii | 21 | 57 | 55.29 | 55.07 | — 0.22 | “ |
| 27 | ι Capricorni | 21 | 13 | 27.48 | 27.52 | + 0.04 | B |
| “ | β Aquarii | 21 | 23 | 15.20 | 15.20 | 0.00 | “ |
| “ | μ Capricorni | 21 | 44 | 41.56 | 41.52 | — 0.04 | “ |
| “ | ι Aquarii | 21 | 57 | 55.25 | 55.07 | — 0.18 | “ |
| “ | ☽'s 1st Limb | 22 | 24 | 11.92 | | | “ |
| “ | χ Aquarii | 22 | 44 | 23.34 | 23.39 | + 0.05 | “ |
| 30 | μ Capricorni | 21 | 44 | 41.15 | 41.49 | + 0.34 | “ |
| “ | ι Aquarii | 21 | 57 | 54.83 | 55 07 | + 0.24 | “ |
| “ | η Aquarii | 22 | 27 | 15.33 | 15.33 | 0.00 | “ |
| “ | $\varkappa^1$ Piscium | 23 | 18 | 51.15 | 51.31 | + 0.16 | “ |
| “ | ι Piscium | 23 | 31 | 50.58 | 50.59 | + 0.01 | “ |
| “ | α Andromdæ | 0 | 0 | 15.08 | 15.09 | + 0.01 | “ |
| “ | γ Pegasi | 0 | 05 | 07.62 | 07.61 | — 0.01 | “ |
| “ | ☽'s 2d Limb | 0 | 45 | 15.52 | | | “ |
| Oct. 1 | ε Pegasi | 21 | 36 | 26.59 | 26.49 | — 0.10 | W |
| “ | α Aquarii | 21 | 57 | 41.06 | 41.03 | — 0.03 | “ |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, Oct. 1 | Fomalhaut | 22 | 48 | 55.98 | 55.79 | − 0.19 | W |
| “ | γ Pegasi | 0 | 05 | 07.46 | 07.61 | + 0.15 | “ |
| “ | α Cassiopeæ | 0 | 31 | 36.29 | 36.32 | + 0.03 | “ |
| “ | β Ceti | 0 | 35 | 40.75 | 40.77 | + 0.02 | “ |
| “ | ε Piscium | 0 | 54 | 45.86 | 46.29 | + 0.43 | “ |
| “ | ϑ Ceti | 1 | 16 | 08.78 | 09.01 | + 0.23 | “ |
| “ | ☽'s 2d Limb | 1 | 35 | 28.44 | | | “ |
| “ | β Arietis | 1 | 45 | 56.51 | 56.58 | + 0.07 | “ |
| 9 | $\alpha^2$ Geminorum | 7 | 24 | 30.87 | 30.88 | + 0.01 | B |
| “ | β Geminorum | 7 | 35 | 38.59 | 38.56 | − 0.03 | “ |
| “ | ☽'s 2d Limb | 9 | 37 | 35.43 | | | “ |
| “ | α Leonis | 9 | 59 | 56.58 | 56.60 | + 0.02 | “ |
| 19 | ☽'s 1st Limb | 17 | 53 | 28.72 | | | “ |
| “ | γ Aquilæ | 19 | 38 | 44.91 | 44.88 | − 0.03 | “ |
| “ | α Aquilæ | 19 | 43 | 04.58 | 04.48 | − 0.10 | “ |
| “ | $\alpha^2$ Capricorni | 20 | 09 | 17.10 | 17.28 | + 0.18 | “ |
| “ | α Cygni | 20 | 36 | 03.29 | 03.09 | − 0.20 | “ |
| “ | 61′ Cygni | 20 | 59 | 49.22 | 49.56 | + 0.34 | “ |
| “ | α Cephei | 21 | 14 | 48.27 | 48.62 | + 0.35 | “ |
| “ | ζ Cygni | 21 | 07 | 13.49 | 13.39 | − 0.10 | “ |
| “ | β Aquarii | 21 | 23 | 15.16 | 14.94 | − 0.22 | “ |
| “ | β Cephei | 21 | 26 | 36.72 | 36.52 | − 0.20 | “ |
| 21 | δ Aquilæ | 19 | 17 | 31.75 | 31.75 | 0.00 | W |
| “ | ☽'s 1st Limb | 19 | 41 | 30.29 | | | “ |
| “ | β Aquarii | 21 | 23 | 15.06 | 14.95 | − 0.11 | “ |
| “ | ε Pegasi | 21 | 36 | 26.38 | 26.26 | − 0.12 | “ |
| “ | α Pegasi | 22 | 56 | 54.41 | 54.70 | + 0.29 | “ |
| 24 | 61′ Cygni | 20 | 59 | 49.54 | 49.46 | − 0.08 | “ |
| “ | ζ Cygni | 21 | 06 | 13.16 | 13.28 | + 0.12 | “ |
| “ | β Aquarii | 21 | 23 | 14.83 | 14.87 | + 0.04 | B |
| “ | β Cephei | 21 | 26 | 36.19 | 36.24 | + 0.05 | “ |
| “ | ε Pegasi | 21 | 36 | 26.26 | 26.23 | − 0.03 | “ |
| “ | α Aquarii | 21 | 57 | 40.85 | 40.80 | − 0.05 | W |
| “ | ☽'s 1st Limb | 22 | 05 | 05.70 | | | “ |
| “ | ϑ Aquarii | 22 | 08 | 30.40 | 30.33 | − 0.07 | “ |
| “ | ζ Aquarii | 22 | 20 | 42.55 | 42.51 | − 0.04 | “ |
| 25 | α Aquarii | 21 | 57 | 40.65 | 40.79 | + 0.14 | “ |
| “ | ζ Aquarii | 22 | 20 | 42.82 | 42.49 | − 0.33 | “ |
| “ | ζ Pegasi | 22 | 33 | 35.79 | 35.84 | + 0.05 | “ |
| “ | Fomalhaut | 22 | 48 | 55.67 | 55.58 | − 0.09 | “ |
| “ | ☽'s 1st Limb | 22 | 50 | 22.95 | | | “ |
| “ | β Piscium | 22 | 55 | 51.18 | 51.25 | + 0.07 | “ |
| “ | γ Piscium | 23 | 08 | 59.77 | 59.62 | − 0.15 | “ |
| “ | γ Cephei | 23 | 32 | 58.07 | 58.04 | − 0.03 | “ |
| 27 | β Aquilæ | 19 | 47 | 33.22 | 33.07 | − 0.15 | “ |
| “ | $\alpha^2$ Capricorni | 20 | 09 | 17.28 | 17.15 | − 0.13 | “ |
| “ | ζ Aquilæ | 21 | 06 | 13.03 | 13.23 | + 0.20 | “ |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, Oct. 27 | α Cephei | 21 | 14 | 48.27 | 48.26 | — 0.01 | W |
| " | β Aquarii | 21 | 23 | 14.93 | 14.82 | — 0.11 | " |
| " | β Cephei | 21 | 26 | 36.08 | 36.08 | 0.00 | " |
| " | ζ Pegasi | 22 | 33 | 35.97 | 35.82 | — 0.15 | B |
| " | ε Pegasi | 21 | 36 | 26.19 | 26.15 | — 0.04 | W |
| " | Fomalhaut | 22 | 48 | 55.53 | 55.55 | + 0.02 | B |
| " | β Piscium | 22 | 55 | 51.45 | 51.23 | — 0.22 | " |
| " | γ Piscium | 23 | 08 | 59.62 | 59.62 | 0.00 | " |
| " | ☽'s 1st Limb | 0 | 22 | 57.70 | | | " |
| " | δ Piscium | 0 | 40 | 31.04 | 30.76 | — 0.28 | " |
| " | η Piscium | 1 | 23 | 03.77 | 03.73 | — 0.04 | " |
| 28 | ω Piscium | 23 | 51 | 13.36 | 13.15 | — 0.21 | " |
| " | α Andromedæ | 0 | 00 | 15.29 | 15.06 | — 0.23 | " |
| " | γ Pegasi | 0 | 05 | 07.56 | 07.61 | + 0.05 | " |
| " | α Cassiopeæ | 0 | 31 | 35.90 | 36.35 | + 0.45 | " |
| " | β Ceti | 0 | 35 | 41.10 | 40.83 | — 0.27 | " |
| " | δ Piscium | 0 | 40 | 30.76 | 30.76 | 0.00 | W |
| " | ☽'s 1st Limb | 1 | 12 | 28.86 | | | " |
| 29 | δ Aquilæ | 19 | 17 | 30.90 | 31.63 | + 0.73 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 17.17 | 17.13 | — 0.04 | " |
| " | 61′ Cygni | 20 | 59 | 49.28 | 49.36 | + 0.08 | " |
| " | ζ Cygni | 21 | 06 | 13.54 | 13.19 | — 0.35 | " |
| " | α Cephei | 21 | 15 | 48.17 | 48.14 | — 0.03 | " |
| " | ω Piscium | 23 | 51 | 12.94 | 13.13 | + 0.19 | " |
| " | δ Piscium | 0 | 40 | 30.35 | 30.76 | + 0.41 | " |
| " | ☽'s 1st Limb | 2 | 04 | 33.49 | | | " |
| " | ☽'s 2d Limb | 2 | 06 | 51.21 | | | " |
| 30 | α Ceti | 2 | 54 | 03.27 | 03.13 | — 0.14 | B |
| " | ☽'s 2d Limb | 3 | 05 | 16.30 | | | " |
| " | η Tauri | 3 | 38 | 07.66 | 07.79 | + 0.13 | " |
| Nov. 1 | $\upsilon^1$ Tauri | 4 | 16 | 53.11 | 52.83 | — 0.28 | " |
| " | α Tauri | 4 | 26 | 53.08 | 53.10 | + 0.02 | " |
| " | τ Tauri | 4 | 32 | 47,76 | 47.60 | — 0.16 | " |
| " | Capella | 5 | 05 | 03.40 | 03.42 | + 0.02 | " |
| " | ☽'s 2d Limb | 5 | 11 | 36.43 | | | " |
| " | β Tauri | 5 | 16 | 20.39 | 20.04 | — 0.35 | " |
| " | α Columbæ | 5 | 33 | 57.09 | 57.24 | + 0.15 | " |
| " | C Tauri | 5 | 43 | 25.52 | 25.27 | — 0.25 | " |
| " | α Orionis | 5 | 46 | 38.25 | 38.41 | + 0.16 | " |
| 2 | Capella | 5 | 05 | 03.47 | 03.46 | — 0.01 | W |
| " | Rigel | 5 | 06 | 57.70 | 57.21 | — 0.49 | " |
| " | β Tauri | 5 | 16 | 20.40 | 20.10 | — 0.30 | " |
| " | δ Orionis | 5 | 23 | 57.67 | 57.53 | — 0.14 | " |
| " | α Leporis | 5 | 26 | 46.90 | 47.17 | + 0.27 | " |
| " | ε Orionis | 5 | 28 | 13.18 | 13.45 | + 0.27 | " |
| " | α Columbæ | 5 | 33 | 57.38 | 57.26 | — 0.12 | " |
| " | ☽'s 2d Limb | 5 | 17 | 12.85 | | | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|
| | | h. m. s. | s. | s. | |
| 1841, Nov. 2 | α Orionis | 5 46 38.55 | 38.44 | —0.11 | W |
| " | Sirius | 6 38 12.32 | 12.19 | —0.13 | " |
| " | ζ Geminorum | 6 54 44.94 | 45.19 | +0.25 | " |
| 3 | ε Geminorum | 6 34 13.76 | 13.79 | +0.03 | B |
| " | ζ Geminorum | 6 54 45.16 | 45.19 | +0.03 | " |
| " | δ Geminorum | 7 10 41.99 | 42.03 | +0.04 | " |
| " | ☽'s 2d Limb | 7 21 20.68 | | | " |
| " | β Geminorum | 7 35 39.46 | 39.39 | —0.07 | " |
| " | φ Geminorum | 7 43 50.18 | 50.19 | +0.01 | " |
| 6 | ο Leonis | 9 32 43.33 | 43.17 | —0.16 | " |
| " | ε Leonis | 9 36 52.80 | 52.70 | —0.10 | " |
| " | α Leonis | 9 59 57.24 | 57.36 | +0.12 | " |
| " | ☽'s 2d Limb | 10 14 07.82 | | | " |
| " | α Urs. Maj. | 10 53 55.06 | 55.24 | +0.18 | " |
| " | δ Leonis | 11 05 41.81 | 41.59 | —0.22 | " |
| 17 | ☽'s 1st Limb | 19 19 36.66 | | | " |
| " | γ Aquilæ | 19 38 44.42 | 44.47 | +0.05 | " |
| " | α Aquilæ | 19 44 04.03 | 04.07 | +0.04 | " |
| " | $\alpha^2$ Capricorni | 20 09 16.97 | 16.88 | —0.09 | " |
| 18 | γ Aquilæ | 19 38 44.51 | 44.46 | —0.05 | " |
| " | α Aquilæ | 19 43 03.75 | 04.08 | +0.33 | " |
| " | ☽'s 1st Limb | 20 10 50.11 | | | " |
| " | α Cygni | 20 36 02.26 | 02.38 | +0.12 | " |
| " | 61′ Cygni | 20 59 48.63 | 48.96 | +0.33 | " |
| " | β Aquarii | 21 23 14.87 | 14.54 | —0.33 | " |
| " | α Cassiopeæ | 0 31 36.41 | 36.12 | —0.29 | " |
| " | β Ceti | 0 35 40.19 | 40.72 | +0.53 | " |
| 24 | α Andromedæ | 0 00 14.70 | 14.83 | +0.13 | " |
| " | γ Pegasi | 0 05 07.56 | 07.43 | —0.13 | " |
| " | ☽'s 1st Limb | 0 48 42.90 | | | " |
| " | $\vartheta^1$ Arietis | 2 09 22.70 | 22.60 | —0.10 | " |
| 30 | α Andromedæ | 0 00 14.80 | 14.77 | —0.03 | " |
| " | β Ceti | 0 35 40.54 | 40.61 | +0.07 | " |
| " | γ Ceti | 2 35 08.86 | 08.92 | +0.06 | " |
| " | α Orionis | 5 46 38.94 | 39.08 | +0.14 | " |
| " | μ Geminorum | 6 13 26.10 | 26.07 | —0.03 | " |
| " | ε Geminorum | 6 34 14.80 | 14.59 | —0.21 | " |
| " | α Canis Maj. | 6 38 12.99 | 12.90 | —0.09 | " |
| " | ☽'s 2d Limb | 6 57 46.98 | | | " |
| " | δ Geminorum | 7 10 42.82 | 42.85 | +0.03 | " |
| " | $\alpha^2$ Geminorum | 7 24 32.50 | 32.67 | +0.17 | " |
| " | Procyon | 7 31 03.36 | 03.23 | —0.13 | " |
| " | β Geminorum | 7 35 40.44 | 40.29 | —0.15 | " |
| Dec. 4 | ϱ Leonis | 10 24 30.39 | 30.14 | —0.25 | " |
| " | ☽'s 2d Limb | 10 50 39.23 | | | " |
| " | δ Leonis | 11 05 42.42 | 42.54 | +0.12 | " |
| " | σ Leonis | 11 12 59.88 | 59.93 | +0.05 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, Dec. 4 | β Leonis | 11 | 41 | 00.41 | 00.30 | — 0.11 | B |
| " | β Virginis | 11 | 42 | 28.39 | 28.49 | + 0.10 | " |
| " | γ Urs. Maj. | 11 | 45 | 30.26 | 30.30 | + 0.04 | " |
| 6 | δ Leonis | 11 | 05 | 42.76 | 42.58 | — 0.18 | " |
| " | σ Leonis | 11 | 13 | 00.02 | 59.99 | — 0.03 | " |
| " | β Virginis | 11 | 42 | 28.16 | 28.55 | + 0.39 | " |
| " | γ Urs. Maj. | 11 | 45 | 30.22 | 30.11 | — 0.11 | " |
| " | η Virginis | 12 | 11 | 49.56 | 49.60 | + 0.04 | " |
| " | β Corvi | 12 | 26 | 05.66 | 05.98 | + 0.32 | " |
| " | ☽'s 2d Limb | 12 | 32 | 51.89 | | | " |
| 7 | η Virginis | 12 | 11 | 50.20 | 49.63 | — 0.57 | " |
| " | β Corvi | 12 | 26 | 05.90 | 06.01 | + 0.11 | " |
| " | $\gamma^1$ Virginis | 12 | 33 | 39.76 | 39.78 | + 0.02 | " |
| " | 12 Can. Ven. | 12 | 48 | 37.82 | 37.86 | + 0.04 | " |
| " | Spica | 13 | 16 | 52.68 | 52.54 | — 0.14 | " |
| " | ☽'s 2d Limb | 13 | 23 | 33.57 | | | " |
| 19 | ☽'s 1st Limb | 22 | 56 | 27.42 | | | " |
| " | γ Piscium | 23 | 08 | 58.99 | 59.04 | + 0.05 | " |
| " | $\varkappa^1$ Piscium | 23 | 18 | 50.77 | 50.65 | — 0.12 | " |
| " | α Andromedæ | 0 | 00 | 14.54 | 14.53 | — 0.01 | " |
| " | β Ceti | 0 | 35 | 40.29 | 40.41 | + 0.12 | " |
| " | δ Piscium | 0 | 40 | 30.65 | 30.44 | — 0.21 | " |
| " | ε Piscium | 0 | 54 | 46.08 | 46.14 | + 0.06 | " |
| " | α Arietis | 1 | 58 | 18.26 | 18.13 | — 0.13 | " |
| 22 | δ Piscium | 0 | 40 | 30.16 | 30.41 | + 0.25 | " |
| " | ε Piscium | 0 | 54 | 46.14 | 46.11 | — 0.03 | " |
| " | γ Ceti | 2 | 35 | 08.72 | 08.86 | + 0.14 | " |
| " | α Ceti | 2 | 54 | 03.17 | 03.32 | + 0.15 | " |
| " | ☽'s 1st Limb | 1 | 14 | 49.97 | | | " |
| " | $\gamma^1$ Eridani | 3 | 50 | 41.82 | 41.53 | — 0.29 | " |
| 24 | α Arietis | 1 | 58 | 18.16 | 18.10 | — 0.06 | " |
| " | $\vartheta^1$ Arietis | 2 | 09 | 22.46 | 22.49 | + 0.03 | " |
| " | γ Arietis | 2 | 29 | 52.98 | 52.67 | — 0.32 | " |
| " | α Ceti | 2 | 54 | 03.25 | 03.32 | + 0.07 | " |
| " | ☽'s 1st Limb | 3 | 04 | 14.95 | | | " |
| " | η Tauri | 3 | 38 | 08.08 | 08.26 | + 0.18 | " |
| " | $\gamma^1$ Eridani | 3 | 50 | 41.62 | 41.53 | — 0.09 | " |
| " | $\mu^1$ Tauri | 4 | 16 | 53.63 | 53.48 | — 0.15 | " |
| " | α Tauri | 4 | 26 | 53.90 | 53.78 | — 0.12 | " |
| 28 | α Tauri | 4 | 26 | 53.81 | 53.79 | — 0.02 | " |
| " | β Tauri | 5 | 16 | 20.76 | 21.08 | + 0.32 | " |
| " | C Tauri | 5 | 43 | 26.79 | 26.47 | — 0.32 | " |
| " | $\mu^1$ Geminorum | 6 | 13 | 26.78 | 26.58 | — 0.20 | " |
| " | ε Geminorum | 6 | 34 | 15.44 | 15.16 | — 0.28 | " |
| " | α Canis Maj. | 6 | 38 | 13.40 | 13.37 | — 0.03 | " |
| " | ζ Geminorum | 6 | 54 | 46.64 | 46.64 | 0.00 | " |
| " | ☽'s 2d Limb | 7 | 32 | 03.09 | | | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1841, Dec. 28 | β Geminorum | 7 | 35 | 41.12 | 41.04 | — 0.08 | B |
| 29 | $\mu^1$ Geminorum | 6 | 13 | 26.54 | 26.55 | + 0.01 | " |
| " | ε Geminorum | 6 | 34 | 15.14 | 15.17 | + 0.03 | " |
| " | Sirius | 6 | 38 | 13.40 | 13.38 | — 0.02 | " |
| " | ζ Geminorum | 6 | 54 | 46.85 | 46.66 | — 0.19 | " |
| " | Procyon | 7 | 31 | 03.74 | 03.88 | + 0.14 | " |
| " | μ Cancri | 7 | 56 | 58.74 | 58.68 | — 0.06 | " |
| " | β Geminorum | 7 | 35 | 41.05 | 41.06 | + 0.01 | " |
| " | ☽'s 2d Limb | 8 | 36 | 00.29 | | | " |
| " | $\alpha^2$ Cancri | 8 | 49 | 53.06 | 52.50 | — 0.56 | " |
| 31 | Capella | 5 | 05 | 04.82 | 04.60 | — 0.22 | " |
| " | β Tauri | 5 | 16 | 21.11 | 21.06 | — 0.05 | " |
| " | δ Orionis | 5 | 23 | 58.40 | 58.43 | + 0.03 | " |
| " | α Leporis | 5 | 25 | 47.98 | 47.99 | + 0.01 | " |
| " | ε Orionis | 5 | 28 | 14.06 | 14.14 | + 0.08 | " |
| " | α Orionis | 5 | 46 | 39.60 | 39.50 | — 0.10 | " |
| " | ε Geminorum | 6 | 34 | 15.20 | 15.19 | — 0.01 | " |
| " | Sirius | 6 | 38 | 13.44 | 13.42 | — 0.02 | " |
| " | ν Leonis | 9 | 49 | 45.04 | 45.09 | + 0.05 | " |
| " | α Leonis | 9 | 59 | 58.93 | 59.13 | + 0.20 | " |
| " | ☽'s 2d Limb | 10 | 31 | 34.38 | | | " |
| " | 34 Sextantis | 10 | 34 | 29.16 | 28.04 | — 1.12 | " |
| " | δ Leonis | 11 | 05 | 43.33 | 43.36 | + 0.03 | " |
| " | δ Hydræ | 11 | 11 | 28.16 | 28.25 | + 0.09 | " |
| 1842, Jan. 2 | ☽'s 2d Limb | 12 | 16 | 45.34 | | | " |
| " | *q* Virginis | 12 | 25 | 38.91 | 38.71 | — 0.20 | " |
| " | ψ Virginis | 12 | 46 | 09.45 | 09.64 | + 0.19 | " |
| " | 12 Can. Ven. | 12 | 48 | 38.98 | 38.86 | — 0.12 | " |
| " | α Virginis | 13 | 16 | 53.22 | 53.42 | + 0.20 | " |
| " | *x* Virginis | 13 | 41 | 18.36 | 18.25 | — 0.11 | " |
| " | η Bootis | 13 | 47 | 10.42 | 10.36 | — 0.06 | " |
| " | α Bootis | 14 | 08 | 27.85 | 27.92 | + 0.07 | " |
| 4 | *x* Virginis | 13 | 14 | 18.64 | 18.28 | — 0.36 | " |
| " | η Bootis | 13 | 47 | 10.60 | 10.37 | — 0.23 | " |
| " | ☽'s 2d Limb | 14 | 01 | 25.97 | | | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 09.05 | 09.27 | + 0.22 | " |
| 19 | γ Pegasi | 0 | 05 | 07.32 | 06.85 | — 0.47 | " |
| " | η Piscium | 1 | 23 | 03.60 | 03.23 | — 0.37 | " |
| " | ☽'s 1st Limb | 1 | 43 | 53.37 | | | " |
| " | β Arietis | 1 | 45 | 56.25 | 56.47 | + 0.22 | " |
| " | α Arietis | 1 | 58 | 17.89 | 17.84 | — 0.05 | " |
| " | $\vartheta^1$ Arietis | 2 | 09 | 22.17 | 22.20 | + 0.03 | " |
| " | δ Arietis | 3 | 02 | 37.97 | 37.72 | — 0.25 | " |
| " | η Tauri | 3 | 38 | 08.25 | 08.11 | — 0.14 | " |
| " | α Tauri | 4 | 26 | 53.93 | 53.80 | — 0.13 | " |
| 20 | η Piscium | 1 | 23 | 03.56 | 03.21 | — 0.35 | " |
| " | α Arietis | 1 | 58 | 17.94 | 17.87 | — 0.07 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1842, Jan. 20 | $\vartheta^1$ Arietis | 2 | 19 | 22.30 | 22.20 | — 0.10 | B |
| " | ☽ 's 1st Limb | 2 | 37 | 05.59 | | | " |
| " | ε Arietis | 2 | 50 | 13.15 | 12.86 | — 0.29 | " |
| " | η Tauri | 3 | 38 | 08.03 | 08.10 | + 0.07 | " |
| 22 | ☽ 's 1st Limb | 4 | 38 | 07.47 | | | " |
| " | ι Tauri | 4 | 53 | 41.42 | 41.68 | + 0.26 | " |
| " | Capella | 5 | 05 | 04.72 | 04.54 | — 0.18 | " |
| " | β Orionis | 5 | 06 | 58.86 | 58.91 | + 0.05 | " |
| " | β Tauri | 5 | 16 | 20.81 | 21.04 | + 0.23 | " |
| " | δ Orionis | 5 | 23 | 58.44 | 58.40 | — 0.04 | " |
| " | ε Orionis | 5 | 28 | 14.06 | 14.12 | + 0.06 | " |
| " | α Columbæ | 5 | 33 | 57.96 | 57.98 | + 0.02 | " |
| " | α Orionis | 5 | 46 | 39.58 | 39.52 | — 0.06 | " |
| " | H Geminorum | 5 | 54 | 33.52 | 33.60 | + 0.08 | " |
| " | $\mu^1$ Geminorum | 6 | 13 | 26.45 | 26.71 | + 0.26 | " |
| " | Sirius | 6 | 38 | 13.60 | 13.48 | — 0.12 | " |
| 23 | α Tauri | 4 | 26 | 53.82 | 53.76 | — 0.06 | " |
| " | Capella | 5 | 05 | 04.59 | 04.52 | — 0.07 | " |
| " | β Orionis | 5 | 06 | 58.98 | 58.90 | — 0.08 | " |
| " | β Tauri | 5 | 16 | 21.06 | 21.03 | — 0.03 | " |
| " | δ Orionis | 5 | 23 | 58.25 | 58.39 | + 0.14 | " |
| " | α Leporis | 5 | 25 | 47.74 | 47.93 | + 0.19 | " |
| " | ε Orionis | 5 | 28 | 13.89 | 14.12 | + 0.23 | " |
| " | α Columbæ | 5 | 32 | 57.98 | 57.97 | — 0.01 | " |
| " | ☽ 's 1st Limb | 5 | 44 | 45.47 | | | " |
| " | H Geminorum | 5 | 54 | 33.94 | 33.66 | — 0.34 | " |
| " | $\mu^1$ Geminorum | 6 | 13 | 26.97 | 26.71 | — 0.26 | " |
| " | Sirius | 6 | 38 | 13.61 | 13.48 | — 0.13 | " |
| 24 | α Tauri | 4 | 26 | 53.96 | 53.75 | — 0.21 | " |
| " | α Columbæ | 5 | 33 | 57.71 | 57.95 | + 0.24 | " |
| " | Capella | 5 | 05 | 04.82 | 04.51 | — 0.31 | " |
| " | β Tauri | 5 | 16 | 21.25 | 21.03 | — 0.22 | " |
| " | δ Orionis | 5 | 23 | 58.19 | 58.39 | + 0.20 | " |
| " | α Leporis | 5 | 25 | 47.72 | 47.92 | + 0.20 | " |
| " | ε Orionis | 5 | 28 | 13.70 | 14.12 | + 0.40 | " |
| " | α Orionis | 5 | 46 | 39.44 | 39.52 | + 0.08 | " |
| " | $\mu^1$ Geminorum | 6 | 13 | 26.92 | 26.71 | — 0.21 | " |
| " | Sirius | 6 | 38 | 13.44 | 13.48 | + 0.04 | " |
| " | ☽ 's 1st Limb | 6 | 52 | 38.25 | | | " |
| " | δ Geminorum | 7 | 24 | 33.76 | 33.77 | + 0.01 | " |
| " | Procyon | 7 | 31 | 04.26 | 04.17 | — 0.09 | " |
| " | ϰ Geminorum | 7 | 34 | 56.77 | 56.96 | + 0.19 | " |
| 25 | α Tauri | 4 | 26 | 53.80 | 53.75 | — 0.05 | " |
| " | Capella | 5 | 05 | 04.44 | 04.50 | + 0.06 | " |
| " | β Orionis | 5 | 06 | 59.10 | 58.90 | — 0.20 | " |
| " | ε Orionis | 5 | 28 | 14.05 | 14.10 | + 0.05 | " |
| " | α Orionis | 5 | 46 | 39.53 | 39.51 | — 0.02 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1842, Jan. 25 | $\mu$ Geminorum | 6 | 13 | 26.71 | 26.71 | 0.00 | B |
| " | Sirius | 6 | 38 | 13.61 | 13.48 | — 0.13 | " |
| " | $\delta$ Geminorum | 7 | 10 | 43.78 | 43.80 | + 0.02 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 33.63 | 33.78 | + 0.15 | " |
| " | Procyon | 7 | 31 | 04.18 | 04.18 | 0.00 | " |
| " | ☽'s 1st Limb | 7 | 59 | 05.01 | | | " |
| " | $\vartheta$ Cancri | 8 | 22 | 37.86 | 37.60 | — 0.26 | " |
| " | $\delta$ Cancri | 8 | 35 | 44.80 | 44.69 | — 0.11 | " |
| " | $\varepsilon$ Hydræ | 8 | 38 | 26.82 | 26.99 | + 0.17 | " |
| 26 | Capella | 5 | 05 | 04.60 | 04.49 | — 0.11 | " |
| " | $\beta$ Tauri | 5 | 16 | 20.96 | 21.01 | + 0.05 | " |
| " | $\delta$ Orionis | 5 | 23 | 58.37 | 58.37 | 0.00 | " |
| " | $\alpha$ Leporis | 5 | 25 | 47.91 | 47.90 | — 0.01 | " |
| " | $\varepsilon$ Orionis | 5 | 28 | 14.09 | 14.10 | + 0.01 | " |
| " | $\alpha$ Columbæ | 5 | 33 | 58.00 | 57.92 | — 0.08 | " |
| " | $\alpha$ Orionis | 5 | 46 | 39.41 | 39.51 | + 0.10 | " |
| " | $\delta$ Geminorum | 7 | 10 | 43.70 | 43.80 | + 0.10 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 33.63 | 33.78 | + 0.15 | " |
| " | Procyon | 7 | 31 | 04.27 | 04.18 | — 0.09 | " |
| " | $\varkappa$ Geminorum | 7 | 34 | 57.12 | 56.92 | — 0.20 | " |
| " | $\vartheta$ Cancri | 8 | 22 | 37.38 | 37.61 | + 0.23 | " |
| " | $\delta$ Cancri | 8 | 35 | 44.34 | 44.70 | + 0.36 | " |
| " | ☽'s 2d Limb | 9 | 04 | 43.40 | | | " |
| 27 | Capella | 5 | 05 | 04.39 | 04.47 | + 0.08 | " |
| " | $\beta$ Orionis | 5 | 06 | 58.94 | 58.87 | — 0.07 | " |
| " | $\beta$ Tauri | 5 | 16 | 21.27 | 21.00 | — 0.27 | " |
| " | $\delta$ Orionis | 5 | 23 | 58.40 | 58.36 | — 0.04 | " |
| " | $\alpha$ Leporis | 5 | 25 | 48.30 | 47.89 | — 0.41 | " |
| " | $\varepsilon$ Orionis | 5 | 28 | 13.92 | 14.09 | + 0.17 | " |
| " | $\alpha$ Columbæ | 5 | 33 | 57.72 | 57.92 | + 0.20 | " |
| " | $\alpha$ Orionis | 5 | 46 | 39.21 | 39.50 | + 0.29 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 33.82 | 33.78 | — 0.04 | " |
| " | Procyon | 7 | 31 | 04.09 | 04.18 | + 0.09 | " |
| " | $\varkappa$ Geminorum | 7 | 34 | 56.85 | 56.90 | + 0.05 | " |
| " | $\vartheta$ Cancri | 8 | 22 | 37.68 | 37.62 | — 0.06 | " |
| " | $\xi$ Leonis | 8 | 23 | 28.03 | 28.18 | + 0.15 | " |
| " | $o$ Leonis | 9 | 34 | 45.33 | 45.50 | + 0.17 | " |
| " | ☽'s 2d Limb | 10 | 04 | 12.42 | | | " |
| " | $\gamma$ Leonis | 10 | 11 | 17.68 | 17.62 | — 0.06 | " |
| " | $\varrho$ Leonis | 10 | 24 | 31.63 | 31.71 | + 0.08 | " |
| Feb. 1 | $\lambda$ Virginis | 14 | 10 | 35.95 | 35.85 | — 0.10 | " |
| " | ☽'s 2d Limb | 13 | 37 | 52.64 | | | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 09.95 | 10.21 | + 0.26 | " |
| " | 20 Libræ | 14 | 54 | 51.58 | 51.78 | + 0.20 | " |
| " | $\beta$ Libræ | 15 | 08 | 31.86 | 31.86 | 0.00 | " |
| " | $\alpha$ Cor. Bor. | 15 | 28 | 00.98 | 00.76 | — 0.22 | " |
| 19 | $\gamma^1$ Eridani | 3 | 50 | 40.92 | 40.88 | — 0.04 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|
| | | h. m. s. | s. | s. | |
| 1842, Feb. 19 | $\nu^1$ Tauri | 4 16 53.53 | 52.97 | — 0.56 | B |
| " | τ Tauri | 4 32 48.32 | 47.88 | — 0.44 | " |
| " | Capella | 5 05 04.14 | 04.06 | — 0.08 | " |
| " | β Orionis | 5 06 58.29 | 58.57 | + 0.28 | " |
| " | ☽'s 1st Limb | 5 13 48.64 | | | " |
| " | β Tauri | 5 16 20.86 | 20.72 | — 0.14 | " |
| " | δ Orionis | 5 23 58.26 | 58.11 | — 0.15 | " |
| " | α Leporis | 5 25 47.62 | 47.58 | — 0.04 | " |
| " | ε Orionis | 5 28 13.85 | 13.83 | — 0.02 | " |
| " | c Tauri | 5 43 26.91 | 26.24 | — 0.67 | " |
| " | α Orionis | 5 46 39.27 | 39.27 | 0.00 | " |
| 20 | Capella | 5 05 04.18 | 04.04 | — 0.14 | " |
| " | β Tauri | 5 16 20.85 | 20.70 | — 0.15 | " |
| " | δ Orionis | 5 23 57.94 | 58.09 | + 0.15 | " |
| " | ε Orionis | 5 28 13.87 | 13.81 | — 0.06 | " |
| " | $\mu^1$ Geminorum | 6 13 26.25 | 26.50 | + 0.25 | " |
| " | ☽'s 1st Limb | 6 18 57.41 | | | " |
| " | ε Geminorum | 6 34 14.78 | 15.18 | + 0.40 | " |
| " | Sirius | 6 38 13.33 | 13.26 | — 0.07 | " |
| 21 | Capella | 5 05 03.96 | 04.04 | + 0.08 | " |
| " | Sirius | 6 38 13.06 | 13.25 | + 0.19 | " |
| " | ζ Geminorum | 6 54 46.69 | 46.74 | + 0.05 | " |
| " | δ Cancri | 6 10 44.02 | 44.80 | + 0.78 | " |
| " | ☽'s 1st Limb | 7 24 20.68 | | | " |
| " | Procyon | 7 31 04.25 | 04.12 | — 0.13 | " |
| " | β Geminorum | 7 35 41.36 | 41.34 | — 0.02 | " |
| 24 | Capella | 5 05 04.06 | 03.95 | — 0.11 | " |
| " | β Orionis | 5 06 58.51 | 58.49 | — 0.02 | " |
| " | β Tauri | 5 16 20.82 | 20.63 | — 0.19 | " |
| " | δ Orionis | 5 23 58.02 | 58.03 | + 0.01 | " |
| " | α Leporis | 5 25 47.74 | 47.49 | — 0.25 | " |
| " | ε Orionis | 5 28 13.55 | 13.75 | + 0.20 | " |
| " | α Orionis | 5 46 38.89 | 39.20 | + 0.31 | " |
| " | δ Cancri | 8 35 44.80 | 44.80 | 0.00 | " |
| " | ε Hydræ | 8 38 27.02 | 27.09 | + 0.07 | " |
| " | $\alpha^2$ Cancri | 8 49 53.40 | 53.15 | — 0.25 | " |
| " | ο Leonis | 9 32 45.80 | 45.74 | — 0.06 | " |
| " | ☽'s 1st Limb | 10 27 37.28 | | | " |
| " | ☽'s 2d Limb | 10 29 57.24 | | | " |
| " | α Leonis | 10 00 00.05 | 00.06 | + 0.01 | " |
| 25 | 15 Argus | 8 00 51.30 | 51.35 | + 0.05 | " |
| " | α Leonis | 10 00 00.29 | 00.06 | — 0.23 | " |
| " | δ Leonis | 11 05 44.76 | 44.75 | — 0.01 | " |
| " | ☽'s 2d Limb | 11 27 28.61 | | | " |
| March 15 | ☽'s 1st Limb | 2 01 40.67 | | | " |
| " | Aldebaran | 4 26 53.06 | 53.02 | — 0.04 | " |
| " | Capella | 5 05 03.58 | 03.50 | — 0.08 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1842, March 15 | β Orionis | 5 | 06 | 58.06 | 58.16 | + 0.10 | B |
| " | β Tauri | 5 | 16 | 20.49 | 20.28 | — 0.21 | " |
| " | δ Orionis | 5 | 23 | 57.67 | 57.71 | + 0.04 | " |
| " | ε Orionis | 5 | 28 | 13.25 | 13.44 | + 0.19 | " |
| 16 | ☽'s 1st Limb | 2 | 54 | 48.27 | | | " |
| " | α Tauri | 4 | 26 | 52.96 | 53.00 | + 0.04 | " |
| " | Capella | 5 | 05 | 03.64 | 03.47 | — 0.17 | " |
| " | β Orionis | 5 | 06 | 58.18 | 58.14 | — 0.04 | " |
| " | β Tauri | 5 | 16 | 20.71 | 20.26 | — 0.45 | " |
| " | δ Orionis | 5 | 23 | 57.65 | 57.69 | + 0.04 | " |
| " | α Leporis | 5 | 25 | 46.89 | 47.11 | + 0.22 | " |
| " | ε Orionis | 5 | 28 | 13.67 | 13.42 | — 0.25 | " |
| 18 | α Tauri | 4 | 26 | 52.90 | 52.96 | + 0.06 | " |
| " | ☽'s 1st Limb | 4 | 51 | 56.67 | | | " |
| " | Capella | 5 | 05 | 03.53 | 03.43 | — 0.10 | " |
| " | β Orionis | 5 | 06 | 57.84 | 58.10 | + 0.26 | " |
| " | β Tauri | 5 | 16 | 20.38 | 20.23 | — 0.15 | " |
| " | δ Orionis | 5 | 23 | 57.59 | 57.66 | + 0.07 | " |
| " | ε Orionis | 5 | 28 | 13.40 | 13.38 | — 0.02 | " |
| " | α Orionis | 5 | 46 | 38.87 | 38.84 | — 0.03 | " |
| 19 | ☽'s 1st Limb | 5 | 54 | 20.25 | | | " |
| " | μ Geminorum | 6 | 13 | 26.13 | 26.05 | — 0.08 | " |
| " | ε Geminorum | 6 | 34 | 14.69 | 14.74 | + 0.05 | " |
| " | Sirius | 6 | 38 | 12.41 | 12.81 | + 0.40 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 33.77 | 33.32 | — 0.45 | " |
| " | Procyon | 7 | 31 | 04.01 | 03.82 | — 0.19 | " |
| " | β Geminorum | 7 | 35 | 41.06 | 40.99 | — 0.07 | " |
| " | 15 Argus | 7 | 00 | 51.16 | 51.15 | — 0.01 | " |
| 20 | ☽'s 1st Limb | 6 | 57 | 39.65 | | | " |
| " | δ Geminorum | 7 | 10 | 42.27 | 43.32 | + 0.95 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 33.32 | 33.29 | — 0.03 | " |
| " | Procyon | 7 | 31 | 03.85 | 03.77 | — 0.08 | " |
| " | β Geminorum | 7 | 35 | 40.85 | 40.96 | + 0.11 | " |
| 23 | ε Hydræ | 8 | 38 | 26.81 | 26.87 | + 0.06 | " |
| " | ι Urs. Maj. | 4 | 48 | 25.27 | 25.13 | — 0.14 | " |
| " | α Hydræ | 9 | 19 | 52.08 | 51.90 | — 0.18 | " |
| " | ξ Leonis | 9 | 23 | 28.48 | 28.26 | — 0.22 | " |
| " | ο Leonis | 9 | 32 | 45.84 | 45.62 | — 0.22 | " |
| " | ε Leonis | 9 | 36 | 55.39 | 55.36 | — 0.03 | " |
| " | ☽'s 1st Limb | 9 | 58 | 00.34 | | | " |
| " | α Leonis | 9 | 59 | 59.79 | 60.01 | + 0.22 | " |
| " | ϱ Leonis | 10 | 24 | 32.29 | 32.11 | — 0.18 | " |
| April 16 | ☽'s 1st Limb | 6 | 38 | 01.04 | | | " |
| " | δ Cancri | 8 | 35 | 44.47 | 44.20 | — 0.27 | " |
| " | $\alpha^2$ Cancri | 8 | 49 | 52.62 | 52.62 | 0.00 | " |
| " | ε Hydræ | 8 | 38 | 26.25 | 26.53 | + 0.28 | " |
| " | α Leonis | 9 | 59 | 59.79 | 59.79 | 0.00 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1842, April 20 | $\alpha^2$ Geminorum | 7 | 24 | 32.42 | 32.73 | + 0.31 | B$^2$* |
| " | Procyon | 7 | 31 | 02.98 | 03.28 | + 0.30 | " |
| " | β Geminorum | 7 | 35 | 40.35 | 40.43 | + 0.08 | " |
| " | ε Hydræ | 8 | 38 | 26.28 | 26.46 | + 0.18 | " |
| " | π Leonis | 9 | 51 | 54.22 | 54.14 | — 0.08 | B |
| " | α Leonis | 9 | 59 | 59.99 | 59.74 | — 0.25 | B$^2$ |
| " | ☽'s 1st Limb | 10 | 30 | 28.45 | | | B |
| " | δ Leonis | 11 | 05 | 45.25 | 44.74 | — 0.51 | " |
| 21 | α Hydræ | 9 | 19 | 51.58 | 51.54 | — 0.04 | " |
| " | *d* Leonis | 10 | 52 | 26.72 | 26.67 | — 0.05 | " |
| " | δ Leonis | 11 | 05 | 44.82 | 44.73 | — 0.09 | " |
| " | δ Hydræ | 11 | 11 | 29.24 | 29.52 | + 0.28 | " |
| " | ☽'s 1st Limb | 11 | 24 | 43.92 | | | " |
| " | υ Leonis | 11 | 28 | 54.35 | 54.39 | + 0.04 | " |
| " | β Virginis | 11 | 24 | 30.79 | 31.00 | + 0.21 | " |
| " | γ Urs. Maj. | 11 | 45 | 33.52 | 33.47 | — 0.05 | " |
| 22 | *d* Leonis | 10 | 52 | 26.54 | 26.67 | + 0.13 | " |
| " | δ Leonis | 11 | 05 | 44.69 | 44.72 | + 0.03 | " |
| " | δ Hydræ | 11 | 11 | 29.53 | 29.51 | — 0.02 | " |
| " | υ Leonis | 11 | 28 | 54.13 | 54.38 | + 0.25 | " |
| " | β Virginis | 11 | 42 | 30.69 | 30.99 | + 0.30 | " |
| " | ☽'s 1st Limb | 12 | 19 | 14.73 | | | " |
| " | *q* Virginis | 12 | 25 | 41.04 | 40.61 | — 0.43 | " |
| " | ψ Virginis | 12 | 46 | 11.69 | 11.71 | + 0.02 | " |
| " | γ Urs. Maj. | 11 | 45 | 34.09 | 33.45 | — 0.64 | " |
| 23 | Procyon | 7 | 31 | 03.14 | 03.24 | + 0.10 | " |
| " | β Geminorum | 7 | 35 | 40.30 | 40.38 | + 0.08 | " |
| " | β Virginis | 11 | 42 | 30.71 | 30.98 | + 0.27 | " |
| " | γ Urs. Maj. | 11 | 45 | 33.12 | 33.44 | + 0.32 | " |
| " | ψ Virginis | 12 | 46 | 11.46 | 11.71 | + 0.25 | " |
| " | 12 Can. Ven. | 12 | 48 | 41.14 | 41.20 | + 0.06 | " |
| " | ☽'s 1st Limb | 13 | 15 | 59.36 | | | " |
| " | α Virginis | 13 | 16 | 55.78 | 55.72 | — 0.06 | " |
| 27 | α Herculis | 17 | 07 | 29.29 | 29.43 | + 0.14 | " |
| " | ☽'s 1st Limb | 17 | 15 | 58.00 | | | " |
| " | $e^2$ Ophiuchi | 17 | 21 | 50.22 | 50.03 | — 0.19 | " |
| " | 4 Sagittarii | 17 | 50 | 12.06 | 11.94 | — 0.12 | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 22.03 | 21.92 | — 0.11 | " |
| 29 | ☽'s 2d Limb | 19 | 10 | 36.92 | | | " |
| " | $p^1$ Sagittarii | 19 | 12 | 33.48 | 33.19 | — 0.29 | " |
| " | δ Aquilæ | 19 | 17 | 34.21 | 34.14 | — 0.07 | " |
| " | α Aquilæ | 19 | 43 | 06.57 | 06.56 | — 0.01 | " |
| 30 | α Aquilæ | 19 | 43 | 06.58 | 06.57 | — 0.01 | " |
| " | β Aquilæ | 19 | 47 | 35.21 | 35.26 | + 0.05 | " |
| " | ☽'s 2d Limb | 20 | 03 | 02.73 | | | " |
| May 5 | ☽'s 1st Limb | 23 | 08 | 05.12 | | | B$^2$ |
| " | Sirius | 6 | 38 | 11.92 | 12.04 | + 0.12 | " |

* B$^2$ indicates the observation to have been made by G. P. Bond.

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1842, May 5 | ε Leonis | 9 | 36 | 54.96 | 54.79 | — 0.17 | B$^2$ |
| 14 | ☽'s 1st Limb | 7 | 20 | 57.89 | | | B |
| " | $\alpha^2$ Geminorum | 7 | 24 | 32.26 | 32.38 | + 0.12 | " |
| " | Procyon | 7 | 31 | 03.01 | 03.00 | — 0.01 | " |
| " | β Geminorum | 7 | 35 | 40.18 | 40.09 | — 0.09 | " |
| " | α Hydræ | 9 | 19 | 51.25 | 51.23 | — 0.02 | " |
| " | δ Leonis | 11 | 05 | 44.72 | 44.48 | — 0.24 | " |
| " | β Leonis | 11 | 41 | 02.35 | 02.58 | + 0.23 | " |
| 16 | Procyon | 7 | 31 | 02.91 | 02.99 | + 0.08 | " |
| " | ☽'s 1st Limb | 9 | 17 | 50.12 | | | " |
| " | ε Leonis | 9 | 36 | 54.75 | 54.64 | — 0.11 | " |
| " | α Leonis | 9 | 59 | 59.48 | 59.42 | — 0.06 | " |
| " | β Leonis | 11 | 41 | 02.63 | 02.56 | — 0.07 | " |
| " | γ Urs. Maj. | 11 | 45 | 32.88 | 32.98 | + 0.10 | " |
| " | β Corvi | 12 | 26 | 08.82 | 08.83 | + 0.01 | " |
| " | 12 Can. Ven. | 12 | 48 | 40.99 | 41.00 | + 0.01 | " |
| " | Spica | 13 | 16 | 55.66 | 55.73 | + 0.07 | " |
| 18 | α Leonis | 9 | 59 | 59.46 | 59.76 | + 0.30 | " |
| " | ☽'s 1st Limb | 11 | 05 | 53.15 | | | " |
| " | β Leonis | 11 | 41 | 02.64 | 02.53 | — 0.11 | " |
| " | γ Urs. Maj. | 11 | 45 | 33.23 | 32.91 | — 0.32 | " |
| " | 12 Can. Ven. | 12 | 48 | 40.86 | 41.02 | + 0.16 | " |
| 20 | η Virginis | 12 | 11 | 52.27 | 52.12 | — 0.15 | " |
| " | *q* Virginis | 12 | 25 | 40.38 | 40.50 | + 0.12 | " |
| " | 12 Can. Ven. | 12 | 48 | 40.97 | 40.97 | 0.00 | " |
| " | ☽'s 1st Limb | 12 | 52 | 30.39 | | | " |
| " | 53 Virginis | 13 | 03 | 42.53 | 42.56 | + 0.03 | " |
| 21 | α Virginis | 13 | 16 | 55.72 | 55.72 | 0.00 | " |
| " | ☽'s 1st Limb | 13 | 48 | 01.80 | | | " |
| 23 | α Leonis | 9 | 59 | 59.38 | 59.34 | — 0.04 | " |
| " | β Corvi | 12 | 26 | 08.98 | 08.82 | — 0.16 | " |
| " | 12 Can. Ven. | 12 | 48 | 40.90 | 40.94 | + 0.04 | " |
| " | α Virginis | 13 | 16 | 55.79 | 55.71 | — 0.08 | " |
| " | η Bootis | 13 | 46 | 12.52 | 12.87 | + 0.35 | " |
| " | α Bootis | 14 | 08 | 30.54 | 30.59 | + 0.05 | " |
| " | λ Virginis | 14 | 10 | 37.57 | 37.73 | + 0.16 | " |
| " | ε Bootis | 14 | 38 | 08.57 | 08.49 | — 0.08 | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 12.36 | 12.40 | + 0.04 | " |
| " | 20 Libræ | 14 | 54 | 53.91 | 54.22 | + 0.31 | " |
| " | $\iota^1$ Libræ | 15 | 03 | 17.33 | 17.24 | — 0.09 | " |
| " | β Libræ | 15 | 08 | 34.29 | 34.17 | — 0.12 | " |
| " | ☽'s 2d Limb | 15 | 47 | 57.78 | | | " |
| " | $\beta^1$ Scorpii | 15 | 56 | 19.41 | 19.21 | — 0.20 | " |
| " | α Scorpii | 16 | 19 | 47.77 | 47.69 | — 0.08 | " |
| 25 | A$^1$ Ophiuchi | 17 | 05 | 41.89 | 42.37 | + 0.48 | " |
| " | ϑ Ophiuchi | 17 | 12 | 22.48 | 22.58 | + 0.10 | " |
| " | α Ophiuchi | 17 | 27 | 39.35 | 39.15 | — 0.20 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1842, May 25 | ☽ 's 2d Limb | 17 | 48 | 40.36 | | | B |
| " | $\mu^1$ Sagittarii | 18 | 04 | 22.46 | 22.68 | +0.22 | " |
| " | λ Sagittarii | 18 | 18 | 17.13 | 17.09 | −0.04 | " |
| " | α Lyræ | 18 | 31 | 38.34 | 38.15 | −0.19 | " |
| " | β Lyræ | 18 | 44 | 17.56 | 17.67 | +0.11 | " |
| 30 | δ Aquilæ | 19 | 17 | 34.93 | 35.01 | +0.08 | B$^2$ |
| " | β Aquilæ | 19 | 47 | 36.03 | 36.14 | +0.11 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 20.01 | 20.23 | +0.22 | " |
| " | ☽ 's 2d Limb | 22 | 05 | 20.09 | | | B |
| June 20 | β Libræ | 15 | 08 | 34.27 | 34.24 | −0.03 | " |
| " | *b* Scorpii | 15 | 41 | 33.32 | 33.27 | −0.05 | " |
| " | ζ Urs. Min. | 15 | 49 | 54.73 | 54.72 | −0.01 | " |
| " | δ Ophiuchi | 16 | 07 | 08.10 | 07.96 | −0.14 | " |
| " | Antares | 16 | 19 | 47.87 | 48.02 | +0.15 | " |
| " | ☽ 's 1st Limb | 16 | 23 | 40.12 | | | " |
| " | η Ophiuchi | 17 | 01 | 23.81 | 23.34 | −0.47 | " |
| 21 | δ Ophiuchi | 16 | 06 | 07.97 | 07.96 | −0.01 | " |
| " | Antares | 16 | 19 | 47.70 | 48.02 | +0.32 | " |
| " | η Ophiuchi | 17 | 01 | 23.40 | 23.35 | −0.05 | " |
| " | α Herculis | 17 | 07 | 30.28 | 30.28 | 0.00 | " |
| " | ☽ 's 1st Limb | 17 | 22 | 25.55 | | | " |
| " | α Ophiuchi | 17 | 27 | 39.63 | 39.67 | +0.04 | " |
| " | 3 Sagittarii | 17 | 37 | 41.58 | 41.50 | −0.08 | " |
| " | 4 Sagittarii | 17 | 50 | 13.47 | 13.14 | −0.33 | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 23.13 | 23.16 | +0.03 | " |
| 29 | ☽ 's 2d Limb | 0 | 00 | 01.90 | | | " |
| " | α Cassiopeæ | 0 | 31 | 37.26 | 37.11 | −0.15 | " |
| " | β Ceti | 0 | 35 | 41.64 | 41.79 | +0.15 | " |
| July 11 | α Leonis | 9 | 59 | 59.08 | 58.98 | −0.10 | " |
| " | ☽ 's 1st Limb | 10 | 30 | 44.42 | | | " |
| " | η Urs. Maj. | 13 | 41 | 21.23 | 20.89 | −0.34 | " |
| " | η Bootis | 13 | 47 | 12.46 | 12.47 | +0.01 | " |
| " | α Bootis | 14 | 08 | 30.36 | 30.22 | −0.14 | " |
| " | ε Bootis | 14 | 38 | 08.14 | 08.15 | +0.01 | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 12.24 | 12.26 | +0.02 | " |
| " | β Urs. Min. | 14 | 51 | 16.54 | 16.88 | +0.34 | " |
| " | β Libræ | 15 | 08 | 33.84 | 34.14 | +0.30 | " |
| 14 | ☽ 's 1st Limb | 13 | 12 | 47.60 | | | " |
| " | Spica | 13 | 16 | 55.31 | 55.33 | +0.02 | " |
| " | Arcturus | 14 | 08 | 30.16 | 30.18 | +0.02 | " |
| " | ε Bootis | 14 | 38 | 07.92 | 08.09 | +0.17 | " |
| " | β Urs. Min. | 14 | 51 | 16.88 | 16.66 | −0.22 | " |
| " | β Libræ | 15 | 08 | 34.34 | 34.10 | −0.24 | " |
| 16 | β Libræ | 15 | 08 | 34.10 | 34.10 | 0.00 | " |
| " | ☽ 's 1st Limb | 15 | 05 | 02.02 | | | " |
| 18 | $\alpha^2$ Libræ | 14 | 42 | 12.28 | 12.19 | −0.09 | " |
| " | ε Bootis | 14 | 38 | 08.56 | 08.39 | −0.17 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1842, July 18 | β Urs. Min. | 14 | 51 | 16.18 | 16.28 | + 0.10 | B |
| " | α Serpentis | 15 | 36 | 32.94 | 32.59 | — 0.35 | " |
| " | σ Scorpii | 16 | 11 | 40.05 | 39.83 | — 0.22 | " |
| " | Antares | 16 | 19 | 47.61 | 47.98 | + 0.37 | " |
| " | ☽'s 1st Limb | 17 | 02 | 30.19 | | | " |
| " | ϑ Ophiuchi | 17 | 12 | 23.09 | 23.04 | — 0.05 | " |
| " | $e^2$ Ophiuchi | 17 | 21 | 50.94 | 51.20 | + 0.26 | " |
| 19 | β Libræ | 15 | 08 | 34.18 | 34.07 | — 0.11 | " |
| " | Antares | 16 | 19 | 47.74 | 47.98 | + 0.24 | " |
| " | ϑ Ophiuchi | 17 | 12 | 23.31 | 23.04 | — 0.27 | " |
| " | α Ophiuchi | 17 | 27 | 40.01 | 39.72 | — 0.29 | " |
| " | ☽'s 1st Limb | 18 | 00 | 45.27 | | | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 23.35 | 23.38 | + 0.03 | " |
| 20 | α Lyræ | 18 | 31 | 38.36 | 38.71 | + 0.35 | " |
| " | ☽'s 1st Limb | 18 | 56 | 57.48 | | | " |
| " | δ Aquilæ | 19 | 17 | 36.16 | 35.81 | — 0.35 | " |
| " | $h^2$ Sagittarii | 19 | 27 | 10.18 | 10.05 | — 0.13 | " |
| August 2 | α Tauri | 4 | 26 | 54.42 | 54.18 | — 0.24 | " |
| " | ☽'s 2d Limb | 4 | 54 | 11.77 | | | " |
| " | Capella | 5 | 05 | 04.43 | 04.48 | + 0.05 | " |
| " | β Orionis | 5 | 06 | 58.55 | 58.71 | + 0.16 | " |
| 17 | Antares | 16 | 19 | 47.50 | 47.65 | + 0.15 | " |
| " | η Draconis | 16 | 22 | 53.30 | 53.25 | — 0.05 | " |
| " | ζ Aquilæ | 18 | 58 | 12.78 | 12.61 | — 0.17 | " |
| " | ☽'s 1st Limb | 19 | 33 | 19.84 | | | " |
| " | β Aquilæ | 19 | 47 | 37.08 | 37.10 | + 0.02 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 21.42 | 21.46 | + 0.04 | " |
| 19 | β Lyræ | 18 | 44 | 17.95 | 18.12 | + 0.17 | " |
| " | α Aquilæ | 19 | 43 | 08.24 | 08.39 | + 0.15 | " |
| " | β Aquilæ | 19 | 47 | 37.27 | 37.12 | — 0.15 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 21.28 | 21.46 | + 0.18 | " |
| " | ϑ Capricorni | 20 | 57 | 08.52 | 08.43 | — 0.09 | " |
| " | 61 Cygni | 20 | 59 | 53.39 | 53.24 | — 0.15 | " |
| " | s Capricorni | 21 | 07 | 04.84 | 04.82 | — 0.02 | " |
| " | ☽'s 1st Limb | 21 | 12 | 24.13 | | | " |
| " | β Aquarii | 21 | 23 | 18.85 | 18.64 | — 0.21 | " |

Mr. Bond communicated a third series of moon culminations, made at Dorchester.

Mr. Bond remarked, that, although these observations had been made at Dorchester, yet the results might safely be reduced to the new Observatory in Cambridge, by means of the differences of latitude and longitude given with each series, without risk of sensible error; the points of observation were within a small compass, and the differences had been accurately determined by triangulation.

## Moon Culminations,

*Observed at Dorchester with a Portable Transit Instrument of 22 inches Focus; corrected for Collimation, Level, and Azimuthal Deviation, and for Clock Error and Rate on Sidereal Time.*

Lat. +42° 19′ 17″. Lon. West of Greenwich, 4 h. 44 m. 17 s.

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1838, Aug. 26 | α Bootis | 14 | 08 | 17.61 | 17.77 | + 0.16 | B |
| " | ☽'s 1st Limb | 14 | 50 | 36.03 | | | " |
| " | α Ophiuchi | 17 | 27 | 27.43 | 27.26 | — 0.17 | " |
| 28 | α Scorpii | 16 | 19 | 31.59 | 31.57 | — 0.02 | " |
| " | ☽'s 1st Limb | 16 | 37 | 49.01 | | | " |
| " | α Herculis | 17 | 07 | 17.64 | 17.93 | + 0.29 | " |
| " | α Ophiuchi | 17 | 27 | 27.61 | 27.36 | — 0.25 | " |
| " | γ Draconis | 17 | 52 | 52.69 | 52.67 | — 0.02 | " |
| 29 | α Herculis | 17 | 07 | 18.16 | 17.92 | — 0.24 | " |
| " | α Ophiuchi | 17 | 27 | 26.98 | 27.22 | + 0.24 | " |
| " | ☽'s 1st Limb | 17 | 38 | 26.06 | | | " |
| 30 | α Ophiuchi | 17 | 27 | 27.08 | 27.21 | + 0.13 | " |
| " | α Lyræ | 18 | 31 | 29.40 | 29.28 | — 0.12 | " |
| " | ☽'s 1st Limb | 18 | 42 | 06.73 | | | " |
| " | σ Sagittarii | 18 | 45 | 16.15 | 16.41 | + 0.26 | " |
| " | τ Sagittarii | 18 | 56 | 53.24 | 52.85 | — 0.39 | " |
| 31 | γ Draconis | 17 | 52 | 52.50 | 52.58 | + 0.08 | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 07.54 | 07.62 | + 0.08 | " |
| " | α Lyræ | 18 | 31 | 29.43 | 29.25 | — 0.18 | " |
| " | σ Sagittarii | 18 | 45 | 16.37 | 16.39 | + 0.02 | " |
| " | ☽'s 1st Limb | 19 | 46 | 44.04 | | | " |
| " | c Sagittarii | 19 | 52 | 45.04 | 45.00 | — 0.04 | " |
| Sept. 2 | α Ophiuchi | 17 | 27 | 27.31 | 27.15 | — 0.16 | " |
| " | γ Draconis | 17 | 52 | 52.73 | 52.52 | — 0.21 | " |
| " | ε Pegasi | 21 | 36 | 16.90 | 16.90 | 0.00 | " |
| " | ☽'s 1st Limb | 21 | 51 | 02.08 | | | " |
| " | ι Aquarii | 21 | 57 | 43.96 | 44.47 | + 0.51 | " |
| " | σ Aquarii | 22 | 22 | 07.24 | 07.71 | + 0.47 | " |
| 3 | ι Aquarii | 21 | 57 | 44.68 | 44.47 | — 0.21 | " |
| " | σ Aquarii | 22 | 22 | 07.30 | 07.71 | + 0.41 | " |
| " | ☽'s 1st Limb | 22 | 49 | 09.46 | | | " |
| " | ☽'s 2d Limb | 22 | 51 | 48.59 | | | " |
| " | φ Aquarii | 23 | 05 | 58.82 | 59.33 | + 0.51 | " |
| 4 | δ Aquilæ | 19 | 17 | 22.95 | 22.44 | — 0.51 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1838, Sept. 4 | γ Aquilæ | 19 | 38 | 36.54 | 36.23 | — 0.31 | B |
| " | α Aquilæ | 19 | 42 | 55.67 | 55.55 | — 0.12 | " |
| " | β Aquilæ | 19 | 47 | 24.18 | 24.21 | + 0.03 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 06.66 | 06.97 | + 0.31 | " |
| " | α Cygni | 20 | 35 | 57.04 | 57.16 | + 0.12 | " |
| " | 61′ Cygni | 20 | 59 | 41.38 | 41.78 | + 0.40 | " |
| " | ζ Cygni | 21 | 06 | 05.83 | 05.47 | — 0.36 | " |
| " | ξ Pegasi | 22 | 33 | 26.39 | 26.17 | — 0.22 | " |
| " | Fomalhaut | 22 | 48 | 45.04 | 45.03 | — 0.01 | " |
| " | α Pegasi | 22 | 56 | 45.39 | 44.87 | — 0.52 | " |
| " | φ Aquarii | 23 | 05 | 59.47 | 59.33 | — 0.14 | " |
| " | $\varkappa^1$ Piscium | 23 | 18 | 40.83 | 41.07 | + 0.24 | " |
| " | ☽'s 2d Limb | 23 | 47 | 32.19 | | | " |
| " | t Piscium | 0 | 17 | 09.00 | 08.77 | — 0.23 | " |
| 5 | ε Piscium | 0 | 54 | 35.94 | 35.66 | — 0.28 | " |
| " | ☽'s 2d Limb | 0 | 42 | 42.02 | | | " |
| " | ϑ Ceti | 1 | 15 | 58.78 | 58.86 | + 0.08 | " |
| 6 | ☽'s 2d Limb | 1 | 38 | 17.28 | | | " |
| " | $\gamma^1$ Arietis | 1 | 44 | 42.39 | 42.09 | — 0.30 | " |
| " | α Arietis | 1 | 58 | 06.33 | 06.19 | — 0.14 | " |
| " | ϑ Arietis | 2 | 09 | 10.70 | 10.59 | — 0.11 | " |
| " | γ Ceti | 2 | 34 | 58.21 | 58.33 | + 0.12 | " |
| " | Capella | 5 | 04 | 46.53 | 46.53 | 0.00 | " |
| 8 | β Lyræ | 18 | 44 | 08.69 | 08.13 | — 0.56 | " |
| " | δ Aquilæ | 19 | 17 | 21.93 | 22.40 | + 0.47 | " |
| " | γ Aquilæ | 19 | 38 | 36.49 | 36.19 | — 0.30 | " |
| " | α Aquilæ | 19 | 42 | 55.16 | 55.51 | + 0.35 | " |
| " | β Aquilæ | 19 | 47 | 24.17 | 24.18 | + 0.01 | " |
| " | ☽'s 2d Limb | 3 | 34 | 54.20 | | | " |
| 9 | α Tauri | 4 | 26 | 40.27 | 40.35 | + 0.08 | " |
| " | ☽'s 2d Limb | 4 | 35 | 39.05 | | | " |
| " | β Tauri | 5 | 16 | 05.89 | 05.80 | — 0.09 | " |
| 10 | $\gamma^1$ Eridani | 3 | 50 | 30.71 | 30.81 | + 0.10 | " |
| " | α Tauri | 4 | 26 | 40.31 | 40.38 | + 0.07 | " |
| " | Capella | 5 | 04 | 47.07 | 46.69 | — 0.38 | " |
| " | β Tauri | 5 | 16 | 05.63 | 05.82 | + 0.19 | " |
| " | ☽'s 2d Limb | 5 | 37 | 32.17 | | | " |
| " | α Orionis | 5 | 46 | 26.10 | 26.09 | — 0.01 | " |
| 13 | β Tauri | 5 | 16 | 06.20 | 05.92 | — 0.28 | " |
| " | δ Orionis | 5 | 23 | 46.14 | 46.12 | — 0.02 | " |
| " | ε Orionis | 5 | 28 | 01.56 | 01.81 | + 0.25 | " |
| " | Sirius | 6 | 38 | 01.78 | 01.81 | + 0.03 | W |
| " | ☽'s 2d Limb | 8 | 31 | 37.57 | | | B |
| 30 | η Capricorni | 20 | 55 | 14.12 | 14.11 | — 0.01 | " |
| " | ζ Cygni | 21 | 06 | 05.19 | 05.19 | 0.00 | " |
| " | γ Capricorni | 21 | 31 | 10.12 | 09.93 | — 0.19 | " |
| " | δ Capricorni | 21 | 38 | 09.32 | 08.92 | — 0.40 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1838, Sept. 30 | σ Aquarii | 22 | 22 | 07.95 | 07.70 | — 0.25 | B |
| " | ☽'s 1st Limb | 22 | 18 | 53.85 | | | " |
| " | ε Canis Maj. | 6 | 52 | 17.16 | 17.16 | 0.00 | " |
| Oct. 1 | γ Aquilæ | 19 | 38 | 36.79 | 35.86 | — 0.93 | " |
| " | α Aquilæ | 19 | 42 | 54.87 | 55.20 | + 0.33 | " |
| " | β Aquilæ | 19 | 47 | 23.87 | 23.87 | 0.00 | " |
| " | γ Capricorni | 21 | 31 | 09.33 | 09.93 | + 0.60 | " |
| " | δ Capricorni | 21 | 38 | 08.73 | 08.92 | + 0.19 | " |
| " | σ Aquarii | 22 | 22 | 07.17 | 07.70 | + 0.53 | " |
| " | ☽'s 1st Limb | 23 | 15 | 14.53 | | | " |
| " | $\varkappa^1$ Piscium | 23 | 18 | 40.83 | 41.20 | + 0.37 | " |
| " | *n* Piscium | 23 | 39 | 40.50 | 39.85 | — 0.65 | " |
| " | Procyon | 7 | 30 | 51.74 | 51.24 | — 0.50 | " |
| 2 | γ Capricorni | 21 | 31 | 10.05 | 09.89 | — 0.16 | " |
| " | δ Capricorni | 21 | 38 | 08.67 | 08.90 | + 0.23 | " |
| " | ζ Pegasi | 22 | 33 | 25.80 | 26.17 | + 0.37 | " |
| " | ☽'s 1st Limb | 0 | 10 | 47.02 | | | " |
| " | ☽'s 2d Limb | 0 | 13 | 06.62 | | | " |
| " | *t* Piscium | 0 | 17 | 10.17 | 09.09 | — 1.08 | " |
| 3 | δ Aquilæ | 19 | 17 | 22.54 | 22.03 | — 0.51 | " |
| " | γ Aquilæ | 19 | 38 | 35.92 | 35.82 | — 0.10 | " |
| " | α Aquilæ | 19 | 42 | 54.46 | 55.00 | + 0.54 | " |
| " | β Aquilæ | 19 | 47 | 23.45 | 23.83 | + 0.38 | " |
| " | α Pegasi | 22 | 56 | 45.50 | 44.89 | — 0.61 | " |
| " | φ Aquarii | 23 | 05 | 59.39 | 59.39 | 0.00 | " |
| " | β Ceti | 0 | 35 | 30.91 | 31.06 | + 0.15 | " |
| " | ☽'s 2d Limb | 1 | 09 | 06.56 | | | " |
| 4 | η Piscium | 1 | 22 | 53.45 | 52.97 | — 0.48 | " |
| " | ο Piscium | 1 | 36 | 54.25 | 54.16 | — 0.09 | " |
| " | ☽'s 2d Limb | 2 | 06 | 44.59 | | | " |
| " | ψ Arietis | 2 | 21 | 59.44 | 59.05 | — 0.39 | " |
| " | π Arietis | 2 | 40 | 18.48 | 19.31 | + 0.83 | " |
| 5 | π Arietis | 2 | 40 | 19.63 | 19.33 | — 0.30 | " |
| " | ☽'s 2d Limb | 3 | 06 | 50.67 | | | " |
| " | *g* Arietis | 3 | 14 | 49.17 | 48.64 | — 0.53 | " |
| " | η Tauri | 3 | 37 | 55.54 | 55.40 | — 0.14 | " |
| " | $\gamma^1$ Eridani | 3 | 50 | 31.48 | 31.49 | + 0.01 | " |
| " | α Tauri | 4 | 26 | 40.95 | 41.13 | + 0.18 | " |
| " | β Orionis | 5 | 06 | 47.65 | 48.03 | + 0.38 | " |
| " | β Tauri | 5 | 16 | 06.97 | 06.67 | — 0.30 | " |
| 7 | ☽'s 2d Limb | 5 | 13 | 13.66 | | | " |
| " | β Tauri | 5 | 16 | 06.99 | 06.74 | — 0.25 | " |
| " | C Tauri | 5 | 43 | 11.91 | 12.06 | + 0.15 | " |
| " | α Orionis | 5 | 46 | 26.72 | 27.01 | + 0.29 | " |
| " | μ Geminorum | 6 | 13 | 12.02 | 12.53 | + 0.51 | " |
| " | ε Geminorum | 6 | 34 | 00.79 | 00.75 | — 0.04 | " |
| " | Sirius | 6 | 38 | 02.88 | 02.52 | — 0.36 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1838, Oct. 7 | $\alpha^2$ Geminorum | 7 | 24 | 18.54 | 18.18 | — 0.36 | B |
| " | Procyon | 7 | 30 | 51.35 | 51.42 | + 0.07 | " |
| " | β Geminorum | 7 | 35 | 26.24 | 26.35 | + 0.11 | " |
| 8 | C Tauri | 5 | 43 | 12.12 | 12.10 | — 0.02 | " |
| " | α Orionis | 5 | 46 | 26.65 | 27.04 | + 0.39 | " |
| " | μ Geminorum | 6 | 13 | 12.61 | 12.56 | — 0.05 | " |
| " | ☽'s 2d Limb | 6 | 16 | 32.00 | | | " |
| " | ε Geminorum | 6 | 34 | 00.41 | 00.78 | + 0.37 | " |
| " | Sirius | 6 | 38 | 02.79 | 02.55 | — 0.24 | " |
| 11 | δ Geminorum | 7 | 10 | 29.87 | 29.44 | — 0.43 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 18.07 | 18.33 | + 0.26 | " |
| " | Procyon | 7 | 30 | 51.84 | 51.54 | — 0.30 | " |
| " | β Geminorum | 7 | 35 | 26.54 | 26.48 | — 0.06 | " |
| " | ☽'s 2d Limb | 9 | 06 | 27.75 | | | " |
| 25 | γ Aquilæ | 19 | 38 | 35.60 | 35.44 | — 0.16 | " |
| " | α Aquilæ | 19 | 42 | 55.23 | 54.81 | — 0.42 | " |
| " | β Aquilæ | 19 | 47 | 23.11 | 23.48 | + 0.37 | " |
| " | ☽'s 1st Limb | 19 | 57 | 26.14 | | | " |
| " | Fomalhaut | 22 | 48 | 44.77 | 44.88 | + 0.11 | " |
| 26 | ψ Capricorni | 20 | 36 | 32.66 | 32.85 | + 0.19 | " |
| " | ☽'s 1st Limb | 20 | 56 | 28.63 | | | " |
| " | ζ Capricorni | 21 | 17 | 27.68 | 27.67 | — 0.01 | " |
| " | β Aquarii | 21 | 23 | 04.37 | 04.44 | + 0.07 | " |
| " | γ Capricorni | 21 | 31 | 09.48 | 09.60 | + 0.12 | " |
| " | ε Pegasi | 21 | 36 | 16.55 | 16.47 | — 0.08 | " |
| 27 | ζ Capricorni | 21 | 17 | 27.59 | 27.64 | + 0.05 | " |
| " | γ Capricorni | 21 | 31 | 09.46 | 09.59 | + 0.13 | " |
| " | ☽'s 1st Limb | 21 | 53 | 23.41 | | | " |
| " | ι Aquarii | 21 | 57 | 43.77 | 44.12 | + 0.35 | " |
| " | σ Aquarii | 22 | 22 | 07.14 | 07.47 | + 0.33 | " |
| 29 | Fomalhaut | 22 | 48 | 45.01 | 44.84 | — 0.17 | " |
| " | φ Aquarii | 23 | 05 | 59.06 | 59.28 | + 0.22 | " |
| " | ☽'s 1st Limb | 23 | 42 | 28.65 | | | " |
| " | q Piscium | 23 | 53 | 34.46 | 34.93 | + 0.47 | " |
| " | t Piscium | 0 | 17 | 09.42 | 09.08 | — 0.34 | " |
| 31 | ι Piscium | 23 | 31 | 40.61 | 40.40 | — 0.21 | " |
| " | γ Pegasi | 0 | 04 | 57.65 | 57.47 | — 0.18 | " |
| " | β Ceti | 0 | 35 | 30.91 | 31.08 | + 0.17 | " |
| " | Piscium | 0 | 39 | 57.32 | | | " |
| " | ε Piscium | 0 | 54 | 36.61 | 36.16 | — 0.45 | " |
| " | ☽'s 1st Limb | 1 | 32 | 58.40 | | | " |
| " | γ Arietis | 1 | 44 | 43.67 | 42.87 | — 0.80 | " |
| Nov. 9 | ε Leonis | 9 | 36 | 41.44 | 41.68 | + 0.24 | " |
| " | α Leonis | 9 | 59 | 47.26 | 47.02 | — 0.24 | " |
| " | ☽'s 2d Limb | 10 | 24 | 28.43 | | | " |
| 10 | ζ Cygni | 21 | 06 | 04.54 | 04.48 | — 0.06 | " |
| " | β Aquarii | 21 | 23 | 04.08 | 04.26 | + 0.18 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1838, Nov. 10 | ε Pegasi | 21 | 36 | 16.32 | 16.26 | — 0.06 | B |
| " | α Aquarii | 21 | 57 | 30.44 | 30.51 | + 0.07 | " |
| " | Fomalhaut | 22 | 48 | 44.77 | 44.68 | — 0.09 | " |
| " | α Leonis | 9 | 59 | 46.74 | 46.74 | 0.00 | " |
| " | ☽ 's 2d Limb | 11 | 08 | 48.46 | | | " |
| 11 | α Leonis | 9 | 59 | 46.84 | 46.74 | — 0.10 | W |
| " | ☽ 's 2d Limb | 11 | 51 | 43.85 | | | " |
| 13 | ☽ 's 2d Limb | 14 | 18 | 00.30 | | | " |
| " | Arcturus | 14 | 08 | 17.69 | 17.69 | 0.00 | B |
| 19 | ☽ 's 1st Limb | 17 | 37 | 21.23 | | | " |
| " | α Lyræ | 18 | 31 | 28.09 | 27.49 | — 0.60 | " |
| " | α Cygni | 20 | 35 | 54.94 | 55.52 | + 0.58 | " |
| 23 | α Lyræ | 18 | 31 | 27.38 | 27.44 | + 0.06 | " |
| " | 61′ Cygni | 20 | 59 | 40.61 | 40.41 | — 0.20 | " |
| " | s Capricorni | 21 | 06 | 49.20 | 49.20 | 0.00 | " |
| " | β Cephei | 21 | 26 | 31.24 | 31.25 | + 0.01 | " |
| " | ☽ 's 1st Limb | 21 | 34 | 34.18 | | | " |
| " | δ Capricorni | 21 | 38 | 08.60 | 08.23 | — 0.37 | " |
| " | ι Aquarii | 21 | 57 | 43.89 | 43.77 | — 0.12 | " |
| 24 | ι Aquarii | 21 | 57 | 43.71 | 43.76 | + 0.05 | " |
| " | ☽ 's 1st Limb | 22 | 28 | 33.05 | | | " |
| " | ζ Pegasi | 22 | 33 | 25.66 | 25.63 | — 0.03 | " |
| " | λ Aquarii | 22 | 44 | 12.48 | 12.60 | + 0.12 | " |
| " | Fomalhaut | 22 | 48 | 44.25 | 44.47 | + 0.22 | " |
| " | α Pegasi | 22 | 56 | 44.33 | 44.18 | — 0.15 | " |
| 25 | Fomalhaut | 22 | 48 | 44.20 | 44.46 | + 0.26 | " |
| " | α Pegasi | 22 | 56 | 44.66 | 44.46 | — 0.20 | " |
| " | ☽ 's 1st Limb | 23 | 20 | 59.91 | | | " |
| " | ι Piscium | 23 | 31 | 40.28 | 40.18 | — 0.10 | " |
| " | n Piscium | 23 | 39 | 39.60 | 39.57 | — 0.03 | " |
| " | α Andromedæ | 0 | 00 | 04.81 | 04.58 | — 0.23 | " |
| " | γ Pegasi | 0 | 04 | 57.00 | 57.31 | + 0.31 | " |
| 26 | Fomalhaut | 22 | 48 | 44.26 | 44.44 | + 0.18 | " |
| " | α Pegasi | 22 | 56 | 44.59 | 44.45 | — 0.14 | " |
| " | ι Piscium | 23 | 31 | 40.55 | 40.17 | — 0.38 | " |
| " | n Piscium | 23 | 39 | 39.85 | 39.56 | — 0.29 | " |
| " | q Piscium | 23 | 53 | 34.71 | 34.72 | + 0.01 | " |
| " | α Andromedæ | 0 | 00 | 04.49 | 04.57 | + 0.08 | " |
| " | γ Pegasi | 0 | 04 | 57.24 | 57.30 | + 0.06 | " |
| " | ☽ 's 1st Limb | 0 | 13 | 11.18 | | | " |
| " | t Piscium | 0 | 17 | 09.19 | 08.93 | — 0.26 | " |
| 28 | η Piscium | 1 | 22 | 52.90 | 53.16 | + 0.26 | " |
| " | ο Piscium | 1 | 36 | 54.42 | 54.41 | — 0.01 | " |
| " | α Arietis | 1 | 58 | 07.40 | 07.13 | — 0.27 | " |
| " | ☽ 's 1st Limb | 2 | 02 | 20.89 | | | " |
| " | ψ Arietis | 2 | 22 | 00.11 | 59.56 | — 0.55 | " |
| " | ν Arietis | 2 | 29 | 41.87 | 41.53 | — 0.34 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1838, Nov. 28 | γ Ceti | 2 | 34 | 58.60 | 58.86 | + 0.26 | B |
| 29 | η Piscium | 1 | 22 | 52.94 | 53.16 | + 0.22 | “ |
| “ | α Arietis | 1 | 58 | 07.04 | 07.13 | + 0.09 | “ |
| “ | ψ Arietis | 2 | 21 | 59.53 | 59.56 | + 0.03 | “ |
| “ | ν Arietis | 2 | 29 | 41.52 | 41.53 | + 0.01 | “ |
| “ | γ Ceti | 2 | 34 | 58.69 | 58.86 | + 0.17 | “ |
| “ | ☽'s 1st Limb | 3 | 01 | 46.89 | | | “ |
| “ | η Tauri | 3 | 37 | 56.63 | 56.36 | — 0.27 | “ |
| 30 | ν Arietis | 2 | 29 | 41.21 | 41.55 | + 0.34 | “ |
| “ | γ Ceti | 2 | 34 | 58.51 | 58.86 | + 0.35 | “ |
| “ | α Ceti | 2 | 53 | 53.14 | 53.03 | — 0.11 | “ |
| “ | ζ Arietis | 3 | 05 | 40.23 | 40.40 | + 0.17 | “ |
| “ | η Tauri | 3 | 37 | 56.49 | 56.37 | — 0.12 | “ |
| “ | $\gamma^1$ Eridani | 3 | 50 | 32.47 | 32.35 | — 0.12 | “ |
| “ | ☽'s 1st Limb | 4 | 05 | 01.58 | | | “ |
| “ | ☽'s 2d Limb | 4 | 07 | 32.80 | | | “ |
| “ | $\upsilon^1$ Tauri | 4 | 16 | 41.80 | 41.54 | — 0.26 | “ |
| “ | τ Tauri | 4 | 32 | 36.60 | 36.30 | — 0.30 | “ |
| Dec. 2 | β Tauri | 5 | 16 | 08.45 | 08.25 | — 0.20 | “ |
| “ | α Orionis | 5 | 46 | 28.20 | 28.45 | + 0.25 | “ |
| “ | μ Geminorum | 6 | 13 | 14.42 | 14.21 | — 0.21 | “ |
| “ | ☽'s 2d Limb | 6 | 19 | 34.60 | | | “ |
| “ | Sirius | 6 | 38 | 03.90 | 04.08 | + 0.18 | “ |
| 3 | $\omega^1$ Geminorum | 6 | 52 | 37.33 | 36.66 | — 0.67 | “ |
| “ | δ Geminorum | 7 | 10 | 31.20 | 31.15 | — 0.05 | “ |
| “ | ☽'s 2d Limb | 7 | 23 | 03.30 | | | “ |
| “ | β Geminorum | 7 | 35 | 28.30 | 28.35 | + 0.05 | “ |
| “ | φ Geminorum | 7 | 43 | 39.13 | 39.13 | 0.00 | “ |
| “ | 15 Argus | 8 | 00 | 42.10 | 42.09 | — 0.01 | “ |
| 5 | ☽'s 2d Limb | 9 | 15 | 48.41 | | | “ |
| “ | ψ Leonis | 9 | 34 | 57.90 | 57.57 | — 0.33 | “ |
| “ | α Hydræ | 9 | 19 | 41.01 | 40.84 | — 0.17 | “ |
| “ | α Leonis | 9 | 59 | 47.73 | 47.90 | + 0.17 | “ |
| 8 | ☽'s 2d Limb | 11 | 34 | 38.18 | | | “ |
| “ | β Leonis | 11 | 40 | 50.42 | 50.42 | 0.00 | “ |
| “ | b Virginis | 11 | 51 | 41.38 | 41.57 | + 0.19 | “ |
| “ | $\gamma^1$ Virginis | 12 | 33 | 29.30 | 29.50 | + 0.20 | “ |
| 9 | Markab | 22 | 56 | 44.68 | 44.31 | — 0.37 | “ |
| “ | β Virginis | 11 | 42 | 18.39 | 18.38 | — 0.01 | “ |
| “ | b Virginis | 11 | 51 | 41.70 | 41.60 | — 0.10 | “ |
| “ | ☽'s 2d Limb | 12 | 17 | 24.23 | | | “ |
| “ | β Corvi | 12 | 25 | 55.46 | 55.66 | + 0.20 | “ |
| “ | $\gamma^1$ Virginis | 12 | 33 | 29.67 | 29.53 | — 0.14 | “ |
| “ | 12 Can. Ven. | 12 | 48 | 28.81 | 29.03 | + 0.22 | “ |
| 10 | ☽'s 2d Limb | 13 | 00 | 30.24 | | | “ |
| “ | Spica | 13 | 16 | 42.22 | 42.22 | 0.00 | “ |
| “ | Arcturus | 14 | 08 | 18.58 | 18.24 | — 0.34 | “ |

## Moon Culminations,

*Observed at Dorchester with a Transit Instrument made by Troughton & Simms, having an Object-glass of two and three quarters inches Diameter, and forty-six inches Focus; corrected for Collimation, Level, and Azimuthal Deviation of the Transit Instrument, and for Clock Error and Rate on Sidereal Time.*

Lat. +42° 19′ 17″. Lon. West of Greenwich, 4 h. 44 m. 17 s.

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|
| | | h. m. s. | s. | s. | |
| 1838, Dec. 11 | Spica | 13 16 42.25 | 42.25 | 0.00 | B |
| " | ☽'s 2d Limb | 13 45 08.77 | | | " |
| 23 | ☽'s 1st Limb | 23 56 12.31 | | | " |
| " | γ Pegasi | 0 04 57.05 | 57.05 | 0.00 | " |
| 25 | ☽'s 1st Limb | 1 40 57.33 | | | " |
| " | α Arietis | 1 58 06.92 | 07.00 | + 0.08 | " |
| " | ϑ¹ Arietis | 2 09 11.60 | 11.51 | — 0.09 | " |
| " | γ Ceti | 2 34 58.83 | 58.81 | — 0.02 | " |
| " | α Ceti | 2 53 53.08 | 53.03 | — 0.05 | " |
| 26 | α Andromedæ | 0 00 04.20 | 04.20 | 0.00 | " |
| " | γ Pegasi | 0 04 57.34 | 56.99 | — 0.35 | " |
| " | ϑ¹ Ceti | 1 15 59.26 | 59.22 | — 0.04 | " |
| " | γ¹ Arietis | 1 44 43.10 | 42.75 | — 0.35 | " |
| " | α Arietis | 1 58 06.58 | 06.99 | + 0.41 | " |
| " | ϑ Arietis | 2 09 11.42 | 11.50 | + 0.08 | " |
| " | ☽'s 1st Limb | 2 37 08.50 | | | " |
| " | δ Arietis | 3 02 27.01 | 26.70 | — 0.31 | " |
| 27 | ☽'s 1st Limb | 3 37 05.04 | | | " |
| " | α Serpentis | 15 36 19.55 | 19.51 | — 0.04 | " |
| " | η Bootis | 13 47 00.57 | 00.94 | + 0.37 | " |
| " | α Bootis | 14 08 18.91 | 18.76 | — 0.15 | " |
| " | ε Bootis | 14 37 56.84 | 56.75 | — 0.09 | " |
| " | α Cor. Bor. | 15 27 51.46 | 51.41 | — 0.05 | " |
| 29 | α Tauri | 4 26 42.38 | 42.50 | + 0.12 | " |
| " | ι Tauri | 4 53 29.99 | 29.94 | — 0.05 | " |
| " | Capella | 5 04 50.33 | 49.96 | — 0.37 | " |
| " | β Tauri | 5 16 08.90 | 08.59 | — 0.31 | " |
| " | δ Orionis | 5 23 48.18 | 48.43 | + 0.25 | " |
| " | ε Orionis | 5 28 03.98 | 04.14 | + 0.16 | " |
| " | α Leporis | 5 25 39.15 | 39.34 | + 0.19 | " |
| " | ☽'s 1st Limb | 5 45 50.27 | | | " |
| " | C Tauri | 5 43 14.37 | 14.10 | — 0.27 | " |
| " | μ Geminorum | 6 13 14.72 | 14.68 | — 0.04 | " |
| 30 | Sirius | 6 38 04.32 | 04.52 | + 0.20 | " |
| " | ☽'s 1st Limb | 6 50 27.78 | | | " |
| " | ε Geminorum | 7 00 55.42 | 54.80 | — 0.62 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1838, Dec. 30 | δ Geminorum | 7 | 10 | 32.04 | 31.78 | — 0.26 | B |
| " | $\alpha^2$ Geminorum | 7 | 24 | 20.83 | 20.93 | + 0.10 | " |
| " | β Geminorum | 7 | 35 | 28.98 | 29.02 | + 0.04 | " |
| " | 12 Can. Ven. | 12 | 48 | 29.63 | 29.84 | + 0.21 | " |
| 31 | δ Geminorum | 7 | 10 | 31.86 | 31.80 | — 0.06 | " |
| " | 15 Argus | 8 | 00 | 42.71 | 42.74 | + 0.03 | " |
| " | α Arietis | 1 | 58 | 06.89 | 06.94 | + 0.05 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 20.93 | 20.94 | + 0.01 | " |
| " | β Geminorum | 7 | 35 | 28.74 | 29.04 | + 0.30 | " |
| " | ☽'s 2d Limb | 7 | 54 | 17.90 | | | " |
| " | η Cancri | 7 | 23 | 25.32 | 24.84 | — 0.52 | " |
| " | ε Hydræ | 8 | 38 | 16.44 | 16.19 | — 0.25 | " |
| 1839, Jan. 8 | ε Bootis | 14 | 37 | 56.93 | 57.15 | + 0.22 | " |
| " | ☽'s 2d Limb | 14 | 11 | 38.28 | | | " |
| " | $\alpha^2$ Libræ | 14 | 41 | 58.83 | 58.61 | — 0.22 | " |
| 10 | γ Pegasi | 0 | 04 | 56 72 | 56.83 | + 0.11 | " |
| " | α Cassiopeæ | 0 | 31 | 23.02 | 23.52 | + 0.50 | " |
| " | β Ceti | 0 | 35 | 30.73 | 30.45 | — 0.28 | " |
| " | γ Ceti | 2 | 34 | 58.70 | 58.68 | — 0.02 | " |
| " | ε Arietis | 2 | 50 | 01.96 | 01.75 | — 0.21 | " |
| " | α Ceti | 2 | 53 | 52.83 | 52.92 | + 0.09 | " |
| " | α Persei | 3 | 12 | 52.65 | 52.53 | — 0.12 | " |
| " | ε Bootis | 14 | 37 | 57.15 | 57.22 | + 0.07 | " |
| " | β Libræ | 15 | 08 | 20.73 | 20.67 | — 0.06 | " |
| " | α Cor. Bor. | 15 | 27 | 51.80 | 51.84 | + 0.04 | " |
| " | ☽'s 2d Limb | 15 | 53 | 31.87 | | | " |
| " | α Scorpii | 16 | 19 | 31.76 | 31.83 | + 0.07 | " |
| 18 | ☽'s 1st Limb | 22 | 47 | 16.56 | | | " |
| " | Markab | 22 | 56 | 43.94 | 43.94 | 0.00 | " |
| 23 | ε Arietis | 2 | 50 | 01.71 | 01.56 | — 0.15 | " |
| " | α Ceti | 2 | 53 | 53.01 | 52.78 | — 0.23 | " |
| " | δ Arietis | 3 | 02 | 26.56 | 26.46 | — 0.10 | " |
| " | ☽'s 1st Limb | 3 | 17 | 02.10 | | | " |
| " | η Tauri | 3 | 37 | 56.19 | 56.26 | + 0.07 | " |
| " | τ Tauri | 4 | 32 | 36.85 | 36.45 | — 0.40 | " |
| " | Capella | 5 | 04 | 49.74 | 49.89 | + 0.15 | " |
| " | γ Draconis | 17 | 52 | 50.48 | 50.67 | + 0.19 | " |
| " | α Lyræ | 18 | 31 | 27.92 | 27.76 | — 0.16 | " |
| Feb. 24 | δ Orionis | 5 | 23 | 48.15 | 48.07 | — 0.08 | " |
| " | α Leporis | 5 | 25 | 38.72 | 38.86 | + 0.14 | " |
| " | ε Orionis | 5 | 28 | 03.79 | 03.80 | + 0.01 | " |
| " | α Orionis | 5 | 46 | 28.79 | 28.57 | — 0.22 | " |
| " | μ Geminorum | 6 | 13 | 14.42 | 14.57 | + 0.15 | " |
| " | ε Geminorum | 6 | 34 | 03.29 | 03.05 | — 0.24 | " |
| " | Sirius | 6 | 38 | 03.98 | 04.35 | + 0.37 | " |
| " | ι Geminorum | 7 | 15 | 45.26 | 45.10 | — 0.16 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 21.29 | 21.19 | — 0.10 | " |

| Date. | Name of Object. | Sidereal Time .of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, Feb. 24 | β Geminorum | 7 | 35 | 29.57 | 29.34 | — 0.23 | B |
| “ | ☽ 's 1st Limb | 8 | 05 | 30.06 | | | “ |
| “ | λ Cancri | 8 | 10 | 59.47 | 58.84 | — 0.63 | “ |
| “ | γ Cancri | 8 | 34 | 00.11 | 59.68 | — 0.43 | “ |
| “ | ε Hydræ | 8 | 38 | 16.92 | 16.75 | — 0.17 | “ |
| 25 | ι Geminorum | 7 | 15 | 44.89 | 45.09 | + 0.20 | “ |
| “ | $\alpha^2$ Geminorum | 7 | 24 | 20.83 | 21.18 | + 0.35 | “ |
| “ | Procyon | 7 | 30 | 54.20 | 53.96 | — 0.24 | “ |
| “ | β Geminorum | 7 | 35 | 29.51 | 29.33 | — 0.18 | “ |
| “ | 15 Argus | 8 | 00 | 42.85 | 42.92 | + 0.07 | “ |
| “ | λ Cancri | 8 | 10 | 59.10 | 58.83 | — 0.27 | “ |
| “ | γ Cancri | 8 | 33 | 59.74 | 59.67 | — 0.07 | “ |
| “ | ☽ 's 1st Limb | 8 | 59 | 48.59 | | | “ |
| “ | λ Leonis | 9 | 22 | 33.74 | 33.69 | — 0.05 | “ |
| “ | ο Leonis | 9 | 32 | 35.31 | 35.24 | — 0.07 | “ |
| March 1 | Capella | 5 | 04 | 49.59 | 49.23 | — 0.36 | “ |
| “ | β Tauri | 5 | 16 | 08.06 | 08.13 | + 0.07 | “ |
| “ | Sirius | 6 | 38 | 04.57 | 04.29 | — 0.28 | “ |
| “ | δ Orionis | 5 | 23 | 47.78 | 48.00 | + 0.22 | “ |
| “ | α Leporis | 5 | 25 | 38.01 | 38.77 | + 0.76 | “ |
| “ | ε Orionis | 5 | 28 | 03.50 | 03.73 | + 0.23 | “ |
| “ | α Columbæ | 5 | 33 | 50.56 | 50.22 | — 0.34 | “ |
| “ | α Orionis | 5 | 46 | 28.00 | 28.51 | + 0.51 | “ |
| “ | υ Leonis | 11 | 28 | 44.06 | 43.27 | — 0.79 | “ |
| “ | β Virginis | 11 | 42 | 20.59 | 20.65 | + 0.06 | “ |
| “ | ☽ 's 2d Limb | 12 | 07 | 15.94 | | | “ |
| “ | η Virginis | 12 | 11 | 42.03 | 41.94 | — 0.09 | “ |
| “ | q Virginis | 12 | 25 | 30.23 | 30.09 | — 0.14 | “ |
| “ | $\gamma^1$ Virginis | 12 | 33 | 32.46 | 32.84 | + 0.38 | “ |
| 3 | Capella | 5 | 05 | 49.44 | 49.20 | — 0.24 | “ |
| “ | Rigel | 5 | 06 | 49.44 | 48.95 | — 0.49 | “ |
| “ | β Tauri | 5 | 16 | 08.10 | 08.09 | — 0.01 | “ |
| “ | δ Orionis | 5 | 23 | 47.74 | 47.96 | + 0.22 | “ |
| “ | α Leporis | 5 | 25 | 38.25 | 38.72 | + 0.47 | “ |
| “ | ε Orionis | 5 | 28 | 03.49 | 03.69 | + 0.20 | “ |
| “ | α Columbæ | 5 | 33 | 50.41 | 50.18 | — 0.23 | “ |
| “ | Sirius | 6 | 38 | 04.14 | 04.25 | + 0.11 | “ |
| “ | ϑ Virginis | 13 | 01 | 38.83 | 39.02 | + 0.19 | “ |
| “ | α Virginis | 13 | 16 | 44.95 | 44.76 | — 0.19 | “ |
| “ | ☽ 's 2d Limb | 13 | 34 | 32.97 | | | “ |
| “ | x Virginis | 13 | 41 | 09.81 | 09.35 | — 0.46 | “ |
| “ | Arcturus | 14 | 08 | 20.73 | 20.84 | + 0.11 | “ |
| “ | ε Bootis | 14 | 37 | 58.52 | 58.93 | + 0.41 | “ |
| “ | $\alpha^2$ Libræ | 14 | 42 | 00.09 | 00.36 | + 0.27 | “ |
| “ | β Libræ | 15 | 08 | 22.43 | 22.33 | — 0.10 | “ |
| “ | α Scorpii | 16 | 19 | 34.10 | 33.62 | — 0.48 | “ |
| 4 | α Virginis | 13 | 16 | 44.74 | 44.78 | + 0.04 | “ |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, March 4 | χ Virginis | 13 | 41 | 09.58 | 09.37 | — 0.21 | B |
| “ | Arcturus | 14 | 08 | 21.26 | 20.87 | — 0.39 | “ |
| “ | ☽ 's 2d Limb | 14 | 20 | 29.74 | | | “ |
| “ | ε Bootis | 14 | 37 | 58.98 | 58.96 | — 0.02 | “ |
| “ | $\alpha^2$ Libræ | 14 | 42 | 00.32 | 00.39 | + 0.07 | “ |
| “ | Libræ | 14 | 48 | 06.32 | | | “ |
| “ | α Herculis | 17 | 07 | 18.95 | 19.08 | + 0.13 | “ |
| “ | γ Draconis | 17 | 52 | 51.87 | 52.06 | + 0.19 | “ |
| 5 | Capella | 5 | 04 | 49.31 | 49.14 | — 0.17 | “ |
| “ | β Tauri | 5 | 16 | 08.08 | 08.06 | — 0.02 | “ |
| “ | δ Orionis | 5 | 23 | 47.81 | 47.93 | + 0.12 | “ |
| “ | α Leporis | 5 | 25 | 38.73 | 38.70 | — 0.03 | “ |
| “ | ε Orionis | 5 | 28 | 03.38 | 03.66 | + 0.28 | “ |
| “ | α Columbæ | 5 | 33 | 50.30 | 50.13 | — 0.17 | “ |
| “ | $\alpha^2$ Libræ | 14 | 42 | 00.30 | 00.42 | + 0.12 | “ |
| “ | ☽ 's 2d Limb | 15 | 09 | 12.76 | | | “ |
| “ | $\gamma^1$ Libræ | 15 | 26 | 33.17 | 32.86 | — 0.31 | “ |
| “ | α Serpentis | 15 | 36 | 21.80 | 21.59 | — 0.21 | “ |
| “ | $\beta^1$ Scorpii | 15 | 56 | 06.20 | 06.17 | — 0.03 | “ |
| “ | α Scorpii | 16 | 19 | 33.64 | 33.69 | + 0.05 | “ |
| “ | α Herculis | 17 | 07 | 19.02 | 19.11 | + 0.09 | “ |
| 7 | Capella | 5 | 04 | 49.18 | 49.09 | — 0.09 | W |
| “ | Rigel | 5 | 06 | 48.87 | 48.89 | + 0.02 | “ |
| “ | β Tauri | 5 | 16 | 08.42 | 08.02 | — 0.40 | “ |
| “ | α Leporis | 5 | 25 | 38.53 | 38.66 | + 0.13 | “ |
| “ | ε Orionis | 5 | 28 | 03.10 | 03.63 | + 0.53 | B |
| “ | ☽ 's 2d Limb | 16 | 57 | 08.32 | | | W |
| “ | A Ophiuchi | 17 | 05 | 27.38 | 28.14 | + 0.76 | “ |
| “ | α Herculis | 17 | 07 | 18.95 | 19.17 | + 0.22 | “ |
| “ | ϑ Ophiuchi | 17 | 12 | 08.09 | 08.30 | + 0.21 | “ |
| “ | α Ophiuchi | 17 | 27 | 28.34 | 28.28 | — 0.06 | “ |
| “ | α Lyræ | 18 | 31 | 29.11 | 28.95 | — 0.16 | “ |
| 10 | Capella | 5 | 04 | 48.79 | 49.02 | + 0.23 | “ |
| “ | Rigel | 5 | 06 | 48.81 | 48.83 | + 0.02 | B |
| “ | β Tauri | 5 | 16 | 07.95 | 07.97 | + 0.02 | “ |
| “ | δ Orionis | 5 | 23 | 48.03 | 47.85 | — 0.18 | “ |
| “ | α Leporis | 5 | 25 | 38.97 | 38.61 | — 0.36 | “ |
| “ | ε Orionis | 5 | 28 | 03.48 | 03.57 | + 0.09 | “ |
| “ | α Columbæ | 5 | 33 | 49.87 | 50.01 | + 0.14 | “ |
| “ | γ Draconis | 17 | 52 | 52.18 | 52.30 | + 0.12 | “ |
| “ | α Lyræ | 18 | 31 | 29.37 | 29.05 | — 0.32 | “ |
| “ | ☽ 's 2d Limb | 17 | 57 | 53.22 | | | “ |
| “ | β Lyræ | 18 | 44 | 08.30 | 08.14 | — 0.16 | “ |
| “ | α Cygni | 20 | 35 | 55.09 | 55.46 | + 0.37 | “ |
| 22 | ☽ 's 1st Limb | 6 | 48 | 28.23 | | | “ |
| “ | δ Geminorum | 7 | 10 | 32.11 | 31.58 | — 0.53 | “ |
| “ | ι Geminorum | 7 | 15 | 44.83 | 44.71 | — 0.12 | “ |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, March 22 | $\alpha^2$ Geminorum | 7 | 24 | 20.77 | 20.80 | + 0.03 | B |
| " | Procyon | 7 | 30 | 53.65 | 53.65 | 0.00 | " |
| " | β Geminorum | 7 | 35 | 29.04 | 28.99 | + 0.05 | " |
| 23 | Procyon | 7 | 30 | 53.52 | 53.63 | + 0.11 | " |
| " | β Geminorum | 7 | 35 | 29.31 | 28.97 | — 0.34 | " |
| " | ☽'s 1st Limb | 7 | 48 | 09.23 | | | " |
| " | γ Aquilæ | 19 | 38 | 36.26 | 36.57 | + 0.31 | " |
| " | α Aquilæ | 19 | 42 | 55.98 | 55.91 | — 0.07 | " |
| 24 | Sirius | 6 | 38 | 03.74 | 03.89 | + 0.15 | " |
| " | α Persei | 3 | 12 | 50.92 | 50.96 | + 0.04 | " |
| " | β Geminorum | 7 | 35 | 28.82 | 28.96 | + 0.14 | " |
| " | 6 Cancri | 7 | 53 | 38.60 | 38.49 | — 0.11 | " |
| " | $\mu^1$ Cancri | 7 | 56 | 47.30 | 47.10 | — 0.20 | " |
| " | 15 Argus | 8 | 00 | 42.54 | 42.54 | 0.00 | " |
| " | ϑ Cancri | 8 | 22 | 26.26 | 26.20 | — 0.06 | " |
| " | ☽'s 1st Limb | 8 | 43 | 28.82 | | | " |
| " | ξ Cancri | 9 | 00 | 07.26 | 07.46 | + 0.20 | " |
| " | q Cancri | 9 | 10 | 01.22 | 00.98 | — 0.24 | " |
| 25 | Sirius | 6 | 38 | 03 99 | 03.87 | — 0.12 | " |
| " | Procyon | 7 | 30 | 53.36 | 53.60 | + 0.24 | " |
| " | β Geminorum | 7 | 35 | 29.12 | 28.94 | — 0.18 | " |
| " | ξ Cancri | 9 | 00 | 07.66 | 07.45 | — 0.21 | " |
| " | q Cancri | 9 | 10 | 01.07 | 00.97 | — 0.10 | " |
| " | α Hydræ | 9 | 19 | 42.01 | 42.18 | + 0.17 | " |
| " | ☽'s 1st Limb | 9 | 34 | 31.73 | | | " |
| " | ν Leonis | 9 | 49 | 34.97 | 35.39 | + 0.42 | " |
| " | η Leonis | 9 | 58 | 34.73 | 35.00 | + 0.27 | " |
| 26 | Capella | 5 | 04 | 48.85 | 48.65 | — 0.20 | " |
| " | ε Canis Maj. | 6 | 52 | 18.74 | 18.74 | 0.00 | " |
| " | ν Leonis | 9 | 49 | 35.50 | 35.39 | — 0.11 | " |
| " | η Leonis | 9 | 58 | 35.24 | 34.99 | — 0.25 | " |
| " | γ Leonis | 10 | 11 | 07.46 | 07.20 | — 0.26 | " |
| " | ☽'s 1st Limb | 10 | 22 | 02.01 | | | " |
| " | ϱ Leonis | 10 | 24 | 21.93 | 21.79 | — 0.14 | " |
| " | l Leonis | 10 | 40 | 49.12 | 49.27 | + 0.15 | " |
| 30 | β Virginis | 11 | 42 | 20.65 | 20.86 | + 0.21 | " |
| " | ψ Virginis | 12 | 46 | 01.28 | 01.40 | + 0.12 | " |
| " | ϑ Virginis | 13 | 01 | 38.94 | 39.40 | + 0.46 | " |
| " | α Virginis | 13 | 16 | 45.12 | 45.20 | + 0.08 | " |
| " | ☽'s 2d Limb | 13 | 19 | 07.15 | | | " |
| " | ο Virginis | 13 | 37 | 23.79 | 23.80 | + 0.01 | " |
| " | α Lyræ | 18 | 31 | 29.59 | 29.72 | + 0.13 | " |
| 31 | α Tauri | 4 | 26 | 41.34 | 41.45 | + 0.11 | " |
| " | Rigel | 5 | 06 | 48.28 | 48.48 | + 0.20 | " |
| " | δ Orionis | 5 | 23 | 47.47 | 47.48 | + 0.01 | " |
| " | α Leporis | 5 | 25 | 38.55 | 38.22 | — 0.33 | " |
| " | ε Orionis | 5 | 28 | 03.20 | 03.24 | + 0.04 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, March 31 | ι Urs. Maj. | 8 | 48 | 11.57 | 11.56 | —0.01 | B |
| " | ξ Cancri | 9 | 00 | 07.39 | 07.40 | +0.01 | " |
| " | α Hydræ | 9 | 19 | 42.19 | 42.13 | —0.06 | " |
| " | α Leonis | 9 | 59 | 49.71 | 49.66 | —0.05 | " |
| " | α Virginis | 13 | 16 | 45.06 | 45.21 | +0.15 | " |
| " | ο Virginis | 13 | 37 | 23.87 | 23.81 | —0.06 | " |
| " | ☽'s 2d Limb | 14 | 04 | 22.39 | | | " |
| " | λ Virginis | 14 | 10 | 26.43 | 26.67 | +0.24 | " |
| April 7 | β Lyræ | 18 | 44 | 09.07 | 09.05 | —0.02 | " |
| " | τ Sagittarii | 18 | 56 | 54.59 | 54.48 | —0.11 | " |
| " | γ Aquilæ | 19 | 38 | 37.09 | 37.02 | —0.07 | " |
| " | α Aquilæ | 19 | 42 | 56.37 | 56.34 | —0.03 | " |
| " | ☽'s 2d Limb | 20 | 30 | 43.81 | | | " |
| " | α Cygni | 20 | 35 | 56.20 | 56.33 | +0.13 | " |
| 8 | α Aquilæ | 19 | 42 | 56.11 | 56.37 | +0.26 | " |
| " | α Cygni | 20 | 35 | 56.63 | 56.36 | —0.27 | " |
| " | ☽'s 2d Limb | 21 | 27 | 40.48 | | | " |
| 16 | ☽'s 1st Limb | 4 | 11 | 34.62 | | | W |
| " | α Tauri | 4 | 26 | 41.44 | 41.30 | —0.14 | " |
| " | Capella | 5 | 04 | 48.20 | 48.26 | +0.06 | " |
| " | β Orionis | 5 | 06 | 48.30 | 48.28 | —0.02 | " |
| " | α Orionis | 5 | 46 | 27.72 | 27.80 | +0.08 | " |
| 20 | Capella | 5 | 04 | 48.21 | 48.20 | —0.01 | " |
| " | Rigel | 5 | 06 | 47.99 | 48.21 | +0.22 | " |
| " | β Tauri | 5 | 16 | 07.48 | 07.32 | —0.16 | " |
| " | α Orionis | 5 | 46 | 27.84 | 27.75 | —0.09 | " |
| " | 12 Can. Ven. | 12 | 48 | 32.31 | 32.41 | +0.10 | B |
| " | Procyon | 7 | 30 | 53.35 | 53.20 | —0.15 | " |
| " | β Geminorum | 7 | 35 | 28.29 | 28.49 | +0.20 | " |
| " | ☽'s 1st Limb | 8 | 25 | 30.65 | | | " |
| " | γ Cancri | 8 | 33 | 59.44 | 59.03 | —0.41 | " |
| " | δ Cancri | 8 | 35 | 33.17 | 33.03 | —0.14 | " |
| " | ε Hydræ | 8 | 38 | 16.21 | 16.16 | —0.05 | " |
| " | ι Urs. Maj. | 8 | 48 | 11.09 | 11.07 | —0.02 | " |
| " | ξ Cancri | 9 | 00 | 07.22 | 07.10 | —0.12 | " |
| 21 | Procyon | 7 | 30 | 53.21 | 53.18 | —0.03 | " |
| " | β Geminorum | 7 | 35 | 28.41 | 28.47 | +0.06 | " |
| " | δ Cancri | 8 | 35 | 33.23 | 33.03 | —0.20 | " |
| " | ε Hydræ | 8 | 38 | 16.18 | 16.15 | —0.03 | " |
| " | ξ Cancri | 9 | 00 | 07.67 | 07.08 | —0.59 | " |
| " | ☽'s 1st Limb | 9 | 18 | 29.41 | | | " |
| " | λ Leonis | 9 | 22 | 33.84 | 33.20 | —0.64 | " |
| 23 | Sirius | 6 | 38 | 03.47 | 03.37 | —0.10 | " |
| " | ρ Leonis | 10 | 24 | 21.15 | 21.57 | +0.42 | " |
| " | ☽'s 1st Limb | 10 | 52 | 47.22 | | | " |
| " | δ Leonis | 11 | 05 | 34.10 | 34.32 | +0.22 | " |
| " | τ Leonis | 11 | 19 | 41.24 | 41.45 | +0.21 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, April 23 | β Leonis | 11 | 40 | 52.69 | 52.82 | + 0.13 | B |
| " | γ Urs. Maj. | 11 | 45 | 23.55 | 23.38 | — 0.17 | " |
| 24 | δ Leonis | 11 | 05 | 34.44 | 34.31 | — 0.13 | " |
| " | υ Leonis | 11 | 28 | 44.46 | 44.24 | — 0.22 | " |
| " | ☽'s 1st Limb | 11 | 36 | 27.37 | | | " |
| " | β Leonis | 11 | 40 | 52.75 | 52.80 | + 0.05 | " |
| " | γ Urs. Maj. | 11 | 45 | 23.30 | 23.36 | + 0.06 | " |
| " | o Virginis | 11 | 57 | 02.87 | 02.66 | — 0.21 | " |
| 25 | o Virginis | 11 | 57 | 02.31 | 02.66 | + 0.35 | " |
| " | δ Leonis | 11 | 05 | 33.78 | 34.30 | + 0.52 | " |
| " | σ Leonis | 11 | 12 | 51.75 | 52.16 | + 0.41 | " |
| " | β Virginis | 11 | 42 | 20.63 | 20.79 | + 0.16 | " |
| " | γ Urs. Maj. | 11 | 45 | 23.56 | 23.36 | — 0.20 | " |
| " | ☽'s 1st Limb | 12 | 19 | 21.12 | | | " |
| " | β Corvi | 12 | 25 | 58.84 | 58.54 | — 0.30 | " |
| " | $\gamma^1$ Virginis | 12 | 33 | 32.31 | 32.40 | + 0.09 | " |
| 26 | β Corvi | 12 | 25 | 58.49 | 58.54 | + 0.05 | W |
| " | $\gamma^1$ Virginis | 12 | 33 | 32.34 | 32.29 | — 0.05 | " |
| " | ψ Virginis | 12 | 46 | 01.06 | 01.51 | + 0.45 | " |
| " | 12 Can. Ven. | 12 | 48 | 32.71 | 32.40 | — 0.31 | " |
| " | ☽'s 1st Limb | 13 | 02 | 35.75 | | | " |
| " | α Virginis | 13 | 16 | 45.09 | 45.38 | + 0.29 | " |
| " | β Leonis | 11 | 40 | 52.49 | 52.80 | + 0.31 | " |
| " | γ Urs. Maj. | 11 | 45 | 23.36 | 23.38 | + 0.02 | " |
| 27 | Spica | 13 | 16 | 45.28 | 45.39 | + 0.11 | B |
| " | m Virginis | 13 | 33 | 13.02 | 12.50 | — 0.52 | " |
| " | o Virginis | 13 | 37 | 24.66 | 23.98 | — 0.68 | " |
| " | ☽'s 1st Limb | 13 | 47 | 13.09 | | | " |
| " | Arcturus | 14 | 08 | 21.79 | 21.71 | — 0.08 | " |
| " | λ Virginis | 14 | 10 | 26.66 | 27.00 | + 0.34 | " |
| May 4 | δ Aquilæ | 19 | 17 | 24.50 | 24.33 | — 0.17 | " |
| " | $h^2$ Sagittarii | 19 | 26 | 56.07 | 56.35 | + 0.28 | " |
| " | γ Aquilæ | 19 | 38 | 37.92 | 37.82 | — 0.10 | " |
| " | α Aquilæ | 19 | 42 | 56.91 | 57.16 | + 0.25 | " |
| " | ☽'s 2d Limb | 20 | 10 | 57.41 | | | " |
| " | α Cygni | 20 | 35 | 57.28 | 57.32 | + 0.04 | " |
| 5 | $\alpha^2$ Capricorni | 20 | 09 | 08.61 | 08.64 | + 0.03 | " |
| " | α Cygni | 20 | 35 | 57.39 | 57.36 | — 0.03 | " |
| " | ☽'s 2d Limb | 21 | 05 | 56.36 | | | " |
| 15 | Capella | 5 | 04 | 48.56 | 48.07 | — 0.49 | " |
| " | ☽'s 1st Limb | 5 | 53 | 31.41 | | | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 20.19 | 19.95 | — 0.24 | " |
| " | Procyon | 7 | 30 | 52.56 | 52.92 | + 0.36 | " |
| " | β Geminorum | 7 | 35 | 27.64 | 28.16 | + 0.52 | " |
| 25 | β Leonis | 11 | 40 | 52.34 | 52.54 | + 0.20 | " |
| " | γ Urs. Maj. | 11 | 45 | 22.80 | 22.73 | — 0.07 | " |
| " | o Virginis | 11 | 57 | 02.24 | 02.45 | + 0.21 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabuar A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, May 25 | $\gamma^1$ Virginis | 12 | 33 | 32.57 | 32.17 | — 0.40 | B |
| “ | 12 Can. Ven. | 12 | 48 | 32.16 | 32.16 | 0.00 | “ |
| “ | Arcturus | 14 | 08 | 21.91 | 21.76 | — 0.15 | “ |
| “ | $\lambda$ Virginis | 14 | 10 | 26.89 | 27.11 | + 0.22 | “ |
| “ | ☽ 's 1st Limb | 14 | 17 | 53.48 | | | “ |
| 30 | ☽ 's 2d Limb | 18 | 54 | 13.02 | | | “ |
| “ | $\tau$ Sagittarii | 18 | 56 | 56.18 | 56.21 | + 0.03 | “ |
| “ | $h^2$ Sagittarii | 19 | 26 | 57.04 | 57.18 | + 0.14 | “ |
| “ | $\delta$ Aquilæ | 19 | 17 | 25.07 | 25.07 | 0.00 | “ |
| “ | $\gamma$ Aquilæ | 19 | 38 | 38.43 | 38.57 | + 0.14 | “ |
| “ | $\alpha$ Aquilæ | 19 | 42 | 57.98 | 57.91 | — 0.07 | “ |
| “ | $\beta$ Aquilæ | 19 | 47 | 26.62 | 26.55 | — 0.07 | “ |
| June 3 | 12 Can. Ven. | 12 | 48 | 32.13 | 32.05 | — 0.08 | “ |
| “ | $\alpha$ Virginis | 13 | 16 | 45.41 | 45.35 | — 0.06 | “ |
| “ | $\varepsilon$ Pegasi | 21 | 36 | 18.72 | 18.52 | — 0.20 | “ |
| “ | ☽ 's 2d Limb | 22 | 34 | 31.52 | | | “ |
| “ | Fomalhaut | 22 | 48 | 46.10 | 46.25 | + 0.15 | “ |
| “ | $\alpha$ Pegasi | 22 | 56 | 45.91 | 45.99 | + 0.08 | “ |
| 14 | Procyon | 7 | 30 | 52.70 | 52.80 | + 0.10 | “ |
| “ | $\beta$ Geminorum | 7 | 35 | 28.08 | 28.03 | — 0.05 | “ |
| “ | ☽ 's 1st Limb | 8 | 32 | 57.31 | | | “ |
| “ | $\alpha$ Hydræ | 9 | 19 | 41.43 | 41.28 | — 0.15 | “ |
| “ | $\alpha$ Leonis | 9 | 59 | 48.78 | 48.87 | + 0.09 | “ |
| 15 | Sirius | 6 | 38 | 03.25 | 03.06 | — 0.19 | “ |
| “ | Procyon | 7 | 30 | 52.76 | 52.80 | + 0.04 | “ |
| “ | ☽ 's 1st Limb | 9 | 27 | 35.68 | | | “ |
| “ | $\alpha$ Leonis | 9 | 59 | 48.70 | 48.87 | + 0.17 | “ |
| 17 | Sirius | 6 | 38 | 03.14 | 03.07 | — 0.07 | “ |
| “ | Procyon | 7 | 30 | 52.84 | 52.81 | — 0.03 | “ |
| “ | $\beta$ Geminorum | 7 | 35 | 27.93 | 28.03 | + 0.10 | “ |
| “ | ☽ 's 1st Limb | 11 | 03 | 26.16 | | | “ |
| 19 | Sirius | 6 | 38 | 03.22 | 03.07 | — 0.15 | “ |
| “ | $\beta$ Leonis | 11 | 40 | 52.35 | 52.32 | — 0.03 | “ |
| “ | $\gamma$ Urs. Maj. | 11 | 45 | 22.18 | 22.13 | — 0.05 | “ |
| “ | ☽ 's 1st Limb | 12 | 31 | 18.14 | | | “ |
| “ | 12 Can. Ven. | 12 | 48 | 31.73 | 31.82 | + 0.09 | “ |
| “ | Spica | 13 | 16 | 45.41 | 45.25 | — 0.16 | “ |
| “ | $m$ Virginis | 13 | 33 | 12.39 | 12.20 | — 0.19 | “ |
| “ | $\chi$ Virginis | 13 | 41 | 10.42 | 10.18 | — 0.24 | “ |
| “ | $\eta$ Bootis | 13 | 47 | 03.46 | 03.64 | + 0.18 | “ |
| 20 | 12 Can. Ven. | 12 | 48 | 31.45 | 31.81 | + 0.36 | “ |
| “ | ☽ 's 1st Limb | 13 | 15 | 05.64 | | | “ |
| “ | $\alpha$ Virginis | 13 | 16 | 45.41 | 45.24 | — 0.17 | “ |
| “ | $\varepsilon$ Bootis | 14 | 37 | 59.80 | 59.98 | + 0.18 | “ |
| “ | $\alpha^2$ Libræ | 14 | 42 | 01.80 | 01.69 | — 0.11 | “ |
| “ | $\alpha$ Serpentis | 15 | 36 | 23.45 | 23.20 | — 0.25 | “ |
| 22 | $\alpha^2$ Libræ | 14 | 42 | 01.71 | 01.68 | — 0.03 | “ |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, June 22 | ι Libræ | 15 | 03 | 06.32 | 06.13 | — 0.19 | B |
| “ | ☽'s 1st Limb | 14 | 48 | 19.95 | | | “ |
| “ | β Libræ | 15 | 08 | 23.91 | 23.84 | — 0.07 | “ |
| 23 | Sirius | 6 | 38 | 03.12 | 03.10 | — 0.02 | “ |
| “ | Arcturus | 14 | 08 | 21.67 | 21.62 | — 0.05 | “ |
| “ | ι Libræ | 15 | 03 | 06.07 | 06.13 | + 0.06 | “ |
| “ | β Libræ | 15 | 08 | 23.84 | 23.84 | 0.00 | “ |
| “ | ☽'s 1st Limb | 15 | 39 | 33.68 | | | “ |
| “ | π Scorpii | 15 | 49 | 10.96 | 10.60 | — 0.36 | “ |
| “ | $\beta^1$ Scorpii | 15 | 56 | 08.18 | 08.18 | 0.00 | “ |
| “ | σ Scorpii | 16 | 11 | 28.59 | 28.01 | — 0.58 | “ |
| “ | Antares | 16 | 19 | 35.63 | 36.02 | + 0.39 | “ |
| “ | η Draconis | 16 | 22 | 52.97 | 52.74 | — 0.23 | “ |
| “ | α Andromedæ | 0 | 0 | 06.14 | 06.04 | — 0.10 | “ |
| 25 | α Cor. Bor. | 15 | 27 | 55.16 | 55.04 | — 0.12 | “ |
| “ | α Serpentis | 15 | 36 | 23.19 | 23.19 | 0.00 | “ |
| “ | b Scorpii | 15 | 41 | 21.82 | 21.60 | — 0.22 | “ |
| “ | $\beta^1$ Scorpii | 15 | 56 | 08.11 | 08.18 | + 0.07 | “ |
| “ | Antares | 16 | 19 | 35.98 | 36.02 | + 0.04 | “ |
| “ | A Ophiuchi | 17 | 05 | 30.24 | 30.82 | + 0.58 | “ |
| “ | ☽'s 1st Limb | 17 | 32 | 06.32 | | | “ |
| “ | $\gamma^2$ Sagittarii | 17 | 55 | 31.65 | 31.88 | + 0.23 | “ |
| “ | p Sagittarii | 17 | 37 | 29.08 | 29.24 | + 0.16 | “ |
| 26 | $\alpha^2$ Libræ | 14 | 42 | 01.68 | 01.67 | — 0.01 | “ |
| “ | β Libræ | 15 | 08 | 23.91 | 23.83 | — 0.08 | “ |
| “ | α Serpentis | 15 | 36 | 23.27 | 23.19 | — 0.08 | “ |
| “ | Antares | 16 | 19 | 35.76 | 35.93 | + 0.17 | “ |
| “ | $\mu^1$ Sagittarii | 18 | 04 | 11.78 | 11.71 | — 0.07 | “ |
| “ | δ Sagittarii | 18 | 10 | 45.41 | 45.19 | — 0.22 | “ |
| “ | λ Sagittarii | 18 | 18 | 05.86 | 05.85 | — 0.01 | “ |
| “ | ☽'s 1st Limb | 18 | 31 | 33.61 | | | “ |
| “ | ☽'s 2d Limb | 18 | 33 | 57.78 | | | “ |
| “ | φ Sagittarii | 18 | 35 | 39.86 | 39.42 | — 0.44 | “ |
| “ | σ Sagittarii | 18 | 45 | 20.79 | 20.43 | — 0.36 | “ |
| “ | τ Sagittarii | 18 | 56 | 57.62 | 56.84 | — 0.78 | “ |
| 29 | ζ Cygni | 21 | 06 | 07.73 | 07.68 | — 0.05 | “ |
| “ | α Cephei | 21 | 14 | 46.17 | 45.88 | — 0.29 | “ |
| “ | ☽'s 2d Limb | 21 | 26 | 03.50 | | | “ |
| “ | δ Capricorni | 21 | 38 | 11.91 | 11.71 | — 0.20 | “ |
| “ | ι Aquarii | 21 | 57 | 47.51 | 46.99 | — 0.52 | “ |
| “ | σ Aquarii | 22 | 22 | 09.37 | 10.05 | + 0.68 | “ |
| “ | ζ Pegasi | 22 | 33 | 28.23 | 28.26 | + 0.03 | “ |
| “ | λ Aquarii | 22 | 43 | 15.06 | 15 19 | + 0.13 | “ |
| “ | Fomalhaut | 22 | 48 | 47.18 | 47.19 | + 0.01 | “ |
| “ | α Pegasi | 22 | 56 | 46.55 | 46.84 | + 0.29 | “ |
| 30 | Spica | 13 | 16 | 45.19 | 45.16 | — 0.03 | “ |
| “ | 12 Can. Ven. | 12 | 48 | 31.67 | 31.66 | — 0.01 | “ |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, June 30 | β Aquarii | 21 | 23 | 07.36 | 07.58 | + 0.22 | B |
| " | δ Capricorni | 21 | 38 | 12.05 | 11.71 | — 0.34 | " |
| " | ☽'s 2d Limb | 22 | 18 | 46.68 | | | " |
| " | σ Aquarii | 22 | 22 | 10.22 | 10.05 | — 0.17 | " |
| " | λ Aquarii | 22 | 44 | 15.12 | 15.22 | + 0.10 | " |
| " | Fomalhaut | 22 | 48 | 47.44 | 47.22 | — 0.22 | " |
| " | α Pegasi | 22 | 56 | 46.87 | 46.88 | — 0.01 | " |
| July 1 | σ Aquarii | 22 | 22 | 10.22 | 10.08 | — 0.14 | " |
| " | ζ Pegasi | 22 | 33 | 28.60 | 28.32 | — 0.28 | " |
| " | λ Aquarii | 22 | 43 | 15.04 | 15.25 | + 0.21 | " |
| " | Fomalhaut | 22 | 48 | 47.39 | 47.25 | — 0.14 | " |
| " | α Pegasi | 22 | 56 | 46.45 | 46.90 | + 0.45 | " |
| " | φ Aquarii | 23 | 06 | 01.30 | 01.41 | + 0.11 | " |
| " | ☽'s 2d Limb | 23 | 09 | 50.02 | | | " |
| " | ι Piscium | 23 | 31 | 42.31 | 42.27 | — 0.04 | " |
| 3 | ☽'s 2d Limb | 0 | 51 | 53.37 | | | " |
| " | α Tauri | 4 | 26 | 41.86 | 42.04 | + 0.18 | " |
| " | Capella | 5 | 04 | 48.98 | 48.84 | — 0.14 | " |
| " | Rigel | 5 | 26 | 48.66 | 48.64 | — 0.02 | " |
| " | α Orionis | 5 | 46 | 27.86 | 28.00 | + 0.14 | " |
| " | Sirius | 6 | 38 | 03.34 | 03.20 | — 0.14 | " |
| 6 | ☽'s 2d Limb | 3 | 45 | 09.35 | | | " |
| " | Capella | 5 | 04 | 48.97 | 48.97 | 0.00 | " |
| " | Sirius | 6 | 38 | 03.23 | 03.23 | 0.00 | " |
| 7 | α Andromedæ | 0 | 00 | 06.42 | 06.53 | + 0.11 | " |
| " | γ Pegasi | 0 | 04 | 59.10 | 59.22 | + 0.12 | " |
| " | α Cassiopeæ | 0 | 31 | 26.30 | 26.07 | — 0.23 | " |
| " | α Tauri | 4 | 26 | 41.55 | 41.52 | — 0.03 | " |
| " | ☽'s 2d Limb | 4 | 50 | 55.07 | | | " |
| " | Rigel | 5 | 06 | 48.53 | 48.72 | + 0.19 | " |
| " | β Tauri | 5 | 16 | 07.46 | 07.97 | + 0.51 | " |
| " | Sirius | 6 | 38 | 03.84 | 03.25 | — 0.59 | " |
| 12 | ☽'s 1st Limb | 9 | 02 | 39.41 | | | " |
| " | α Leonis | 9 | 59 | 48.80 | 48.76 | — 0.04 | " |
| " | Spica | 13 | 16 | 45.04 | 45.05 | + 0.01 | " |
| " | β Libræ | 15 | 08 | 23.67 | 23.75 | + 0.08 | " |
| " | Antares | 16 | 19 | 36.06 | 36.02 | — 0.04 | " |
| 16 | ☽'s 1st Limb | 12 | 13 | 13.37 | | | " |
| " | 12 Can. Ven. | 12 | 48 | 31.17 | 31.41 | + 0.24 | " |
| " | Spica | 13 | 16 | 45.02 | 45.01 | — 0.01 | " |
| " | η Urs. Maj. | 13 | 41 | 13.39 | 13.37 | — 0.02 | " |
| " | η Bootis | 13 | 47 | 03.27 | 03.38 | + 0.11 | " |
| " | Sirius | 6 | 38 | 03.22 | 03.38 | + 0.16 | " |
| 17 | $\gamma^1$ Virginis | 12 | 33 | 31.75 | 31.74 | — 0.01 | " |
| " | ☽'s 1st Limb | 12 | 57 | 03.63 | | | " |
| " | Spica | 13 | 16 | 45.06 | 45.00 | — 0.06 | " |
| " | η Urs. Maj. | 13 | 41 | 13.97 | 13.35 | — 0.62 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, July 17 | η Bootis | 13 | 47 | 03.40 | 03.36 | — 0.04 | B |
| " | Arcturus | 14 | 08 | 21.27 | 21.37 | + 0.10 | " |
| " | ε Bootis | 13 | 37 | 59.85 | 59.69 | — 0.16 | " |
| " | $\alpha^2$ Libræ | 14 | 42 | 01.35 | 01.51 | + 0.16 | " |
| " | α Tauri | 4 | 26 | 42.57 | 42.47 | — 0.10 | " |
| " | Capella | 5 | 04 | 49.41 | 49.35 | — 0.06 | " |
| " | Rigel | 5 | 06 | 49.01 | 48.96 | — 0.05 | " |
| " | β Tauri | 5 | 16 | 08.06 | 08.22 | + 0.16 | " |
| " | ε Orionis | 5 | 28 | 03.63 | 03.59 | — 0.04 | " |
| " | Sirius | 6 | 38 | 03.42 | 03.48 | + 0.06 | " |
| 23 | ϑ Ophiuchi | 17 | 12 | 10.69 | 11.06 | + 0.37 | W |
| " | p Sagittarii | 17 | 37 | 29.81 | 29.38 | — 0.43 | " |
| " | γ Draconis | 17 | 52 | 54.92 | 55.00 | + 0.08 | " |
| " | ☽'s 1st Limb | 18 | 07 | 23.86 | | | " |
| " | λ Sagittarii | 18 | 18 | 05.81 | 05.89 | + 0.08 | " |
| " | α Lyræ | 18 | 31 | 32.65 | 32.00 | — 0.65 | " |
| " | σ Sagittarii | 18 | 45 | 20.61 | 20.72 | + 0.11 | " |
| " | ζ Aquilæ | 18 | 58 | 03.78 | 03.76 | — 0.02 | " |
| " | α Tauri | 4 | 26 | 42.64 | 42.65 | + 0.01 | " |
| " | Capella | 5 | 04 | 49.69 | 49.57 | — 0.12 | " |
| " | Rigel | 5 | 06 | 48.99 | 49.10 | + 0.11 | " |
| 26 | ψ Capricorni | 20 | 36 | 37.26 | 37.34 | + 0.08 | B |
| " | ☽'s 2d Limb | 21 | 06 | 02.22 | | | " |
| " | β Aquarii | 21 | 23 | 07.72 | 08.13 | + 0.41 | " |
| " | γ Capricorni | 21 | 31 | 13.34 | 13.40 | + 0.06 | " |
| " | ε Pegasi | 21 | 36 | 19.88 | 19.87 | — 0.01 | " |
| " | α Aquarii | 21 | 57 | 33.95 | 34.04 | + 0.09 | " |
| " | ϑ Aquarii | 22 | 08 | 23.46 | 23.07 | — 0.39 | " |
| " | ζ Pegasi | 22 | 33 | 29.08 | 28.95 | — 0.13 | " |
| " | Fomalhaut | 22 | 48 | 48.04 | 48.02 | — 0.02 | " |
| " | α Pegasi | 22 | 56 | 47.92 | 47.58 | — 0.34 | " |
| 27 | ε Pegasi | 21 | 36 | 19.69 | 19.89 | + 0.20 | " |
| " | α Aquarii | 21 | 57 | 34.19 | 34.06 | — 0.13 | " |
| " | ☽'s 2d Limb | 22 | 00 | 34.97 | | | " |
| " | ϑ Aquarii | 22 | 08 | 23.15 | 23.09 | — 0.06 | " |
| " | σ Aquarii | 22 | 22 | 11.22 | 10.75 | — 0.47 | " |
| " | ζ Pegasi | 22 | 33 | 29.05 | 28.97 | — 0.08 | " |
| August 23 | γ Aquilæ | 19 | 38 | 39.38 | 39.51 | + 0.13 | " |
| " | α Aquilæ | 19 | 42 | 58.65 | 58.91 | + 0.26 | " |
| " | β Aquilæ | 19 | 47 | 27.51 | 27.59 | + 0.08 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 10.89 | 10.74 | — 0.15 | " |
| " | α Cygni | 20 | 35 | 59.78 | 59.56 | — 0.22 | " |
| " | ζ Cygni | 21 | 06 | 08.45 | 08.36 | — 0.09 | " |
| " | ☽'s 1st Limb | 21 | 34 | 41.58 | | | " |
| " | Rigel | 5 | 06 | 49.86 | 49.96 | + 0.10 | " |
| 24 | Antares | 16 | 19 | 35.68 | 35.59 | — 0.09 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 10.72 | 10.74 | + 0.02 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, Aug. 24 | α Cygni | 20 | 35 | 59.60 | 59.55 | — 0.05 | B |
| " | η Capricorni | 20 | 55 | 18.65 | 18.14 | — 0.51 | " |
| " | 61′ Cygni | 20 | 59 | 44.58 | 44.80 | + 0.22 | " |
| " | ζ Cygni | 21 | 06 | 08.49 | 08.36 | — 0.13 | " |
| " | ☽'s 1st Limb | 22 | 28 | 58.23 | | | " |
| " | ☽'s 2d Limb | 22 | 31 | 14.61 | | | " |
| 25 | λ Aquarii | 22 | 44 | 16.10 | 16.45 | + 0.35 | " |
| " | Fomalhaut | 22 | 48 | 48.84 | 48.59 | — 0.25 | " |
| " | α Pegasi | 22 | 56 | 47.97 | 48.10 | + 0.13 | " |
| " | ☽'s 2d Limb | 23 | 24 | 09.31 | | | " |
| " | ι Piscium | 23 | 31 | 43.57 | 43.68 | + 0.11 | " |
| " | q Piscium | 23 | 53 | 37.99 | 38.01 | + 0.02 | " |
| " | α Andromedæ | 0 | 00 | 07.61 | 07.83 | + 0.22 | " |
| " | γ Pegasi | 0 | 05 | 00.71 | 00.47 | — 0.24 | " |
| " | α Cassiopeæ | 0 | 31 | 28.31 | 27.97 | — 0.34 | " |
| " | β Ceti | 0 | 35 | 33.81 | 33.83 | + 0.02 | " |
| " | δ Piscium | 0 | 40 | 23.28 | 23.41 | + 0.13 | " |
| " | α Tauri | 4 | 26 | 43.84 | 43.65 | — 0.19 | " |
| " | Capella | 5 | 04 | 51.19 | 50.86 | — 0.33 | " |
| " | Rigel | 5 | 06 | 49.73 | 49.99 | + 0.26 | " |
| " | β Tauri | 5 | 16 | 09.49 | 09.44 | — 0.05 | " |
| " | ε Orionis | 5 | 28 | 04.24 | 04.59 | + 0.35 | " |
| " | α Orionis | 5 | 46 | 29.33 | 29.28 | — 0.05 | " |
| 26 | α Herculis | 17 | 07 | 21.04 | 21.00 | — 0.04 | " |
| " | γ Draconis | 17 | 52 | 53.90 | 54.28 | + 0.38 | " |
| " | $\mu^1$ Sagittarii | 18 | 04 | 11.51 | 11.69 | + 0.18 | " |
| " | α Lyræ | 18 | 31 | 31.72 | 31.59 | — 0.13 | " |
| " | γ Aquilæ | 19 | 38 | 39.45 | 39.49 | — 0.04 | " |
| " | α Aquilæ | 19 | 42 | 58.81 | 58.89 | — 0.08 | " |
| " | β Aquilæ | 19 | 47 | 27.77 | 27.57 | — 0.20 | " |
| " | q Piscium | 23 | 53 | 38.12 | 38.01 | — 0.11 | " |
| " | ☽'s 2d Limb | 0 | 16 | 51.68 | | | " |
| " | α Cassiopeæ | 0 | 31 | 28.31 | 28.09 | — 0.22 | " |
| 27 | α Herculis | 17 | 07 | 20.66 | 20.99 | + 0.33 | W |
| " | β Draconis | 17 | 26 | 49.79 | 49.78 | — 0.01 | " |
| " | α Lyræ | 18 | 31 | 31.91 | 31.58 | — 0.33 | " |
| " | ☽'s 2d Limb | 1 | 10 | 37.34 | | | B |
| 28 | η Piscium | 1 | 22 | 56.05 | 55.84 | — 0.21 | " |
| " | ο Piscium | 1 | 36 | 57.14 | 56.94 | — 0.20 | " |
| " | β Arietis | 1 | 45 | 48.83 | 48.58 | — 0.25 | " |
| " | α Arietis | 1 | 58 | 09.80 | 09.70 | — 0.10 | " |
| " | ☽'s 2d Limb | 2 | 06 | 39.10 | | | " |
| " | χ Arietis | 2 | 22 | 01.98 | 01.86 | — 0.12 | " |
| " | γ Ceti | 2 | 35 | 00.76 | 00.92 | + 0.16 | " |
| " | ν Arietis | 2 | 29 | 44.20 | 43.85 | — 0.35 | " |
| Sept. 1 | Antares | 16 | 19 | 35.52 | 35.47 | — 0.05 | " |
| " | α Herculis | 17 | 07 | 20.89 | 20.93 | + 0.04 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, Sept. 1 | α Tauri | 4 | 26 | 43.64 | 43.87 | + 0.23 | B |
| " | Capella | 5 | 04 | 51.09 | 51.16 | + 0.07 | " |
| " | β Orionis | 5 | 06 | 50.06 | 50.20 | + 0.14 | " |
| " | β Tauri | 5 | 16 | 09.71 | 09.68 | — 0.03 | " |
| " | δ Orionis | 5 | 23 | 49.27 | 49.13 | — 0.14 | " |
| " | ε Orionis | 5 | 28 | 05.06 | 04.80 | — 0.26 | " |
| " | α Orionis | 5 | 46 | 29.71 | 29.49 | — 0.22 | " |
| " | ☽'s 2d Limb | 6 | 18 | 28.64 | | | " |
| " | Sirius | 6 | 38 | 04.13 | 04.38 | + 0.25 | " |
| 10 | Capella | 5 | 04 | 51.67 | 51.59 | — 0.08 | " |
| " | Rigel | 5 | 06 | 50.52 | 50.50 | — 0.02 | " |
| " | β Tauri | 5 | 16 | 10.01 | 10.02 | + 0.01 | " |
| " | δ Orionis | 5 | 23 | 49.26 | 49.42 | + 0.16 | " |
| " | α Leporis | 5 | 25 | 40.00 | 39.92 | — 0.08 | " |
| " | ε Orionis | 5 | 28 | 05.07 | 05.10 | + 0.03 | " |
| " | ☽'s 1st Limb | 13 | 50 | 43.85 | | | " |
| " | Arcturus | 14 | 08 | 20.12 | 20.66 | + 0.54 | " |
| " | α Serpentis | 15 | 36 | 22.37 | 22.37 | 0.00 | " |
| 13 | Sirius | 6 | 38 | 04.84 | 04.74 | — 0.10 | " |
| " | ☽'s 1st Limb | 16 | 20 | 54.31 | | | " |
| " | α Herculis | 17 | 07 | 20.69 | 20.69 | 0.00 | " |
| " | α Lyræ | 18 | 31 | 31.38 | 31.18 | — 0.20 | " |
| 15 | Antares | 16 | 19 | 35.41 | 35.22 | — 0.19 | " |
| " | ☽'s 1st Limb | 17 | 16 | 37.78 | | | " |
| " | α Lyræ | 18 | 31 | 31.16 | 31.15 | — 0.01 | " |
| " | β Lyræ | 18 | 44 | 10.17 | 10.46 | + 0.29 | " |
| " | ξ Aquilæ | 18 | 58 | 03.43 | 03.35 | — 0.08 | " |
| " | δ Aquilæ | 19 | 17 | 25.68 | 25.65 | — 0.03 | " |
| " | β Aquilæ | 19 | 47 | 27.35 | 27.37 | + 0.02 | " |
| 16 | ☽'s 1st Limb | 18 | 14 | 20.87 | | | " |
| " | δ Aquilæ | 19 | 17 | 25.61 | 25.64 | + 0.03 | " |
| " | γ Aquilæ | 19 | 38 | 39.32 | 39.26 | — 0.06 | " |
| " | α Aquilæ | 19 | 42 | 58.65 | 58.67 | + 0.02 | " |
| 18 | $\mu^1$ Sagittarii | 18 | 04 | 11.23 | 11.34 | + 0.11 | W |
| " | α Aquilæ | 19 | 42 | 58.67 | 58.64 | — 0.03 | " |
| " | β Aquilæ | 19 | 47 | 27.54 | 27.33 | — 0.21 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 10.59 | 10.54 | — 0.05 | " |
| " | ☽'s 1st Limb | 20 | 10 | 47.08 | | | " |
| " | π Capricorni | 20 | 18 | 09.92 | 09.70 | — 0.22 | " |
| " | α Cygni | 20 | 35 | 59.04 | 59.21 | + 0.17 | " |
| 19 | $\alpha^2$ Capricorni | 20 | 09 | 10.56 | 10.53 | — 0.03 | " |
| " | π Capricorni | 20 | 18 | 10.05 | 09.69 | — 0.36 | " |
| " | χ Capricorni | 20 | 36 | 37.49 | 37.36 | — 0.13 | " |
| " | ☽'s 1st Limb | 21 | 07 | 18.77 | | | B |
| " | β Aquarii | 21 | 23 | 08.29 | 08.37 | + 0.08 | " |
| " | γ Capricorni | 21 | 31 | 13.44 | 13.70 | + 0.26 | " |
| " | ε Pegasi | 21 | 36 | 20.17 | 20.13 | — 0.04 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, Sept. 20 | γ Draconis | 17 | 52 | 53.06 | 53.47 | + 0.41 | B |
| " | $\mu^1$ Sagittarii | 18 | 04 | 11.21 | 11.31 | + 0.10 | " |
| " | α Lyræ | 18 | 31 | 31.23 | 31.03 | — 0.20 | " |
| " | ζ Aquilæ | 18 | 58 | 03.41 | 03.27 | — 0.14 | " |
| " | δ Aquilæ | 19 | 17 | 25.82 | 25.58 | — 0.24 | " |
| " | γ Aquilæ | 19 | 38 | 39.46 | 39.20 | — 0.26 | " |
| " | α Aquilæ | 19 | 42 | 58.41 | 58.61 | + 0.20 | " |
| " | β Aquilæ | 19 | 47 | 27.25 | 27.30 | + 0.05 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 10.57 | 10.52 | — 0.05 | " |
| " | ζ Cygni | 21 | 06 | 08.40 | 08.17 | — 0.23 | " |
| " | γ Capricorni | 21 | 31 | 13.92 | 13.70 | — 0.22 | " |
| " | ε Pegasus | 21 | 36 | 19.98 | 20.13 | + 0.15 | " |
| " | ☽ 's 1st Limb | 22 | 02 | 14.46 | | | " |
| " | ζ Pegasi | 22 | 33 | 29.47 | 29.52 | + 0.05 | " |
| " | Fomalhaut | 22 | 48 | 48.67 | 48.78 | + 0.11 | " |
| 21 | β Aquilæ | 19 | 47 | 27.53 | 27.29 | — 0.24 | " |
| " | ζ Cygni | 21 | 06 | 08.02 | 08.16 | + 0.14 | " |
| " | β Aquarii | 21 | 23 | 08.32 | 08.36 | + 0.04 | " |
| " | γ Capricorni | 21 | 31 | 13.59 | 13.70 | + 0.11 | " |
| " | ε Pegasi | 21 | 36 | 20.15 | 20.12 | — 0.03 | " |
| " | ϑ Aquarii | 22 | 08 | 24.08 | 23.74 | — 0.34 | " |
| " | σ Aquarii | 22 | 22 | 11.10 | 11.27 | + 0.17 | " |
| " | ☽ 's 1st Limb | 22 | 55 | 58.84 | | | " |
| " | φ Aquarii | 23 | 06 | 02.94 | 02.88 | — 0.06 | " |
| " | $\varkappa^1$ Piscium | 23 | 18 | 44.58 | 44.59 | + 0.01 | " |
| 23 | α Andromedæ | 0 | 00 | 08.47 | 08.22 | — 0.25 | " |
| " | γ Pegasi | 0 | 05 | 01.20 | 00.86 | — 0.34 | " |
| " | *d* Piscium | 0 | 12 | 23.10 | 22.85 | — 0.25 | " |
| " | ☽ 's 2d Limb | 0 | 46 | 11.39 | | | " |
| " | η Piscium | 1 | 22 | 56.99 | 56.38 | — 0.61 | " |
| " | α Tauri | 4 | 25 | 44.53 | 44.58 | + 0.05 | " |
| " | Capella | 5 | 04 | 51.73 | 52.20 | + 0.47 | " |
| " | Rigel | 5 | 06 | 50.83 | 50.87 | + 0.04 | W |
| " | β Tauri | 5 | 16 | 10.26 | 10.47 | + 0.21 | " |
| " | α Leporis | 5 | 25 | 40.23 | 40.31 | + 0.08 | " |
| " | ε Orionis | 5 | 28 | 05.51 | 05.48 | — 0.03 | " |
| " | Sirius | 6 | 38 | 05.22 | 05.04 | — 0.18 | " |
| 26 | δ Aquilæ | 19 | 17 | 25.55 | 25.49 | — 0.06 | " |
| " | γ Aquilæ | 19 | 38 | 38.83 | 39.11 | + 0.28 | " |
| " | α Aquilæ | 19 | 42 | 58.45 | 58.53 | + 0.08 | " |
| " | β Aquilæ | 19 | 47 | 26.82 | 27.22 | + 0.40 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 10.52 | 10.44 | — 0.08 | " |
| " | α Cygni | 20 | 35 | 58.74 | 59.04 | + 0.30 | " |
| " | ☽ 's 2d Limb | 3 | 46 | 04.18 | | | B |
| " | Capella | 5 | 04 | 52.03 | 52.27 | + 0.24 | " |
| " | Rigel | 5 | 06 | 50.55 | 50.96 | + 0.41 | " |
| " | β Tauri | 5 | 16 | 10.37 | 10.57 | + 0.20 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, Sept. 26 | δ Orionis | 5 | 23 | 49.89 | 49.90 | + 0.01 | B |
| " | α Leporis | 5 | 25 | 40.13 | 40.40 | + 0.27 | " |
| " | ε Orionis | 5 | 28 | 05.47 | 05.57 | + 0.10 | " |
| " | α Columbæ | 5 | 33 | 51.55 | 51.45 | — 0.10 | " |
| " | μ Geminorum | 6 | 13 | 16.15 | 16.19 | + 0.04 | " |
| " | Sirius | 6 | 38 | 05.50 | 05.13 | — 0.37 | " |
| 30 | ε Geminorum | 6 | 34 | 04.46 | 04.62 | + 0.16 | " |
| " | Sirius | 6 | 38 | 05.36 | 05.25 | — 0.11 | " |
| " | ε Canis Maj. | 6 | 52 | 19.82 | 19.78 | — 0.04 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 22.03 | 22.22 | + 0.19 | W |
| " | Procyon | 7 | 30 | 55.01 | 54.69 | + 0.32 | " |
| " | ☽'s 2d Limb | 8 | 03 | 18.23 | | | B |
| Oct. 1 | ε Canis Maj. | 6 | 52 | 20.03 | 19.82 | — 0 21 | " |
| " | β Geminorum | 7 | 35 | 30.05 | 30.20 | + 0.15 | " |
| " | δ Geminorum | 7 | 10 | 32.95 | 33.10 | + 0.15 | " |
| " | Procyon | 7 | 30 | 54.52 | 54.72 | + 0.20 | " |
| " | β Geminorum | 7 | 35 | 30.22 | 30.23 | + 0.01 | " |
| " | ☽'s 2d Limb | 8 | 58 | 57.05 | | | " |
| 2 | δ Geminorum | 7 | 10 | 33.13 | 33.13 | 0.00 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 22.20 | 22.29 | + 0.09 | " |
| " | Procyon | 7 | 29 | 54.72 | 54.75 | + 0.03 | " |
| " | β Geminorum | 7 | 35 | 30.39 | 30.27 | — 0.12 | " |
| " | ☽'s 2d Limb | 9 | 50 | 11.29 | | | " |
| 3 | α Leonis | 9 | 59 | 49.55 | 49.55 | 0.00 | W |
| " | ☽'s 2d Limb | 10 | 37 | 55.69 | | | " |
| 16 | γ Aquilæ | 19 | 38 | 39.06 | 38.80 | — 0.26 | B |
| " | α Aquilæ | 19 | 42 | 58.25 | 58.23 | — 0.02 | " |
| " | β Aquilæ | 19 | 47 | 26.91 | 26.92 | + 0 01 | " |
| " | c Sagittarii | 19 | 52 | 48.45 | 48.46 | + 0.01 | " |
| " | σ Capricorni | 20 | 10 | 09.20 | 09.27 | + 0.07 | " |
| " | α Cygni | 20 | 36 | 58.52 | 58.56 | + 0.04 | " |
| " | ☽'s 1st Limb | 20 | 42 | 30.27 | | | " |
| " | η Capricorni | 20 | 55 | 17.57 | 17.69 | + 0.12 | " |
| " | 61′ Cygni | 21 | 00 | 43.43 | 44.13 | + 0.70 | " |
| " | ζ Cygni | 21 | 06 | 07.92 | 07.78 | — 0.14 | " |
| " | β Aquarii | 21 | 23 | 08.39 | 08.10 | — 0.29 | " |
| 17 | α Cygni | 20 | 35 | 58.82 | 58.53 | — 0.29 | " |
| " | η Capricorni | 20 | 55 | 17.96 | 17.68 | — 0.28 | " |
| " | 61′ Cygni | 20 | 59 | 43.82 | 44.11 | + 0.29 | " |
| " | s Capricorni | 21 | 06 | 53.50 | 53.40 | — 0.10 | " |
| " | ☽'s 1st Limb | 21 | 36 | 35.84 | | | " |
| " | Procyon | 7 | 30 | 54.86 | 55.23 | — 0.37 | " |
| " | β Geminorum | 7 | 35 | 31.15 | 30.78 | — 0.37 | " |
| 18 | α Cygni | 20 | 35 | 58.36 | 58.51 | + 0.15 | " |
| " | ξ Cygni | 21 | 06 | 07.86 | 07.75 | — 0.11 | " |
| " | β Aquarii | 21 | 23 | 08.55 | 08.08 | — 0.47 | " |
| " | δ Capricorni | 21 | 38 | 12.56 | 12.38 | — 0.18 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, Oct. 18 | ☽'s 1st Limb | 22 | 28 | 31.14 | | | B |
| " | ζ Pegasi | 22 | 33 | 28.92 | 29.37 | + 0.45 | " |
| 21 | ε Pegasi | 21 | 36 | 19.98 | 19.81 | — 0.17 | " |
| " | α Aquarii | 21 | 57 | 34.20 | 34.18 | — 0.02 | " |
| " | Fomalhaut | 22 | 48 | 49.03 | 48.60 | — 0.43 | " |
| " | γ Pegasi | 0 | 05 | 00.98 | 00.93 | — 0.05 | " |
| " | α Cassiopeæ | 0 | 31 | 28.50 | 28.59 | + 0.09 | " |
| " | β Ceti | 0 | 36 | 34.31 | 34.43 | + 0.12 | " |
| " | δ Piscium | 0 | 40 | 23.85 | 23.98 | + 0.13 | " |
| " | ☽'s 1st Limb | 1 | 10 | 25.66 | | | " |
| " | ϑ Ceti | 1 | 16 | 02.71 | 02.80 | + 0.09 | " |
| " | η Piscium | 1 | 22 | 57.09 | 56.68 | — 0.41 | " |
| " | β Arietis | 1 | 45 | 49.44 | 49.58 | + 0.14 | " |
| 22 | β Arietis | 1 | 45 | 49.68 | 49.58 | — 0.10 | " |
| " | α Arietis | 1 | 58 | 10.74 | 10.70 | — 0.04 | " |
| " | ☽'s 2d Limb | 2 | 12 | 07.85 | | | " |
| " | γ Ceti | 2 | 35 | 01.89 | 02.05 | + 0.16 | " |
| " | π Arietis | 2 | 40 | 23.64 | 23.32 | — 0.32 | " |
| " | ε Arietis | 2 | 50 | 05.33 | 05.28 | — 0.05 | " |
| 25 | Capella | 5 | 04 | 53.19 | 53.41 | + 0.22 | " |
| " | Rigel | 5 | 06 | 51.77 | 51.75 | — 0.02 | " |
| " | β Tauri | 5 | 16 | 11.48 | 11.51 | + 0.03 | " |
| " | δ Orionis | 5 | 23 | 50.85 | 50.71 | — 0.14 | " |
| " | α Leporis | 5 | 25 | 40.97 | 41.21 | + 0.24 | " |
| " | ☽'s 2d Limb | 5 | 32 | 04.57 | | | " |
| " | c Tauri | 5 | 43 | 16.56 | 16.83 | + 0.27 | " |
| " | α Orionis | 5 | 46 | 31.46 | 31.13 | — 0.33 | " |
| " | κ Aurigæ | 6 | 05 | 11.05 | 11.39 | + 0.34 | " |
| 26 | μ Geminorum | 6 | 13 | 17.45 | 17.18 | — 0.27 | " |
| " | Sirius | 6 | 38 | 06.28 | 06.03 | — 0.25 | " |
| " | ☽'s 2d Limb | 6 | 39 | 44.98 | | | " |
| " | ε Canis Maj. | 6 | 52 | 21.13 | 20.61 | — 0.52 | " |
| " | τ Geminorum | 7 | 00 | 57.51 | 57.15 | — 0.36 | " |
| " | ι Geminorum | 7 | 15 | 47.06 | 47.12 | + 0.06 | " |
| " | $\alpha^2$ Geminorum | 7 | 24 | 22.65 | 23.16 | + 0.51 | " |
| " | Procyon | 7 | 30 | 55.09 | 55.50 | + 0.41 | " |
| " | β Geminorum | 7 | 35 | 30.95 | 31.10 | + 0.15 | " |
| 27 | β Geminorum | 7 | 35 | 31.15 | 31.15 | 0.00 | " |
| " | ☽'s 2d Limb | 7 | 43 | 19.68 | | | " |
| " | 6 Cancri | 7 | 53 | 40.44 | 40.51 | + 0.07 | " |
| " | 15 Argus | 8 | 04 | 43.65 | 43.74 | + 0.09 | " |
| " | λ Cancri | 8 | 11 | 00.46 | 00.29 | — 0.17 | " |
| 28 | Procyon | 7 | 30 | 55.59 | 55.56 | — 0.03 | " |
| " | β Geminorum | 7 | 35 | 31.45 | 31.17 | — 0.28 | " |
| " | 6 Cancri | 7 | 53 | 41.02 | 40.51 | — 0.51 | " |
| " | 15 Argus | 8 | 00 | 43.93 | 43.77 | — 0.16 | " |
| " | λ Cancri | 8 | 11 | 00.10 | 00.29 | + 0.19 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, Oct. 28 | ☽'s 2d Limb | 8 | 41 | 33.36 | | | B |
| " | ι Urs. Maj. | 8 | 48 | 12.79 | 13.00 | + 0.21 | " |
| " | α Hydræ | 9 | 19 | 42.88 | 42.93 | + 0.05 | " |
| " | α Leonis | 9 | 59 | 50.03 | 50.22 | + 0.19 | " |
| 29 | 6 Cancri | 7 | 53 | 40.82 | 40.55 | — 0.27 | " |
| " | 15 Argus | 8 | 00 | 44.40 | 43.80 | — 0.60 | " |
| " | λ Cancri | 8 | 11 | 00.63 | 00.33 | — 0.30 | " |
| " | ε Hydræ | 8 | 38 | 18.18 | 17.84 | — 0.34 | " |
| " | ξ Cancri | 9 | 00 | 08.53 | 08.64 | + 0.11 | " |
| " | α Hydræ | 9 | 19 | 42.85 | 42.96 | + 0.11 | " |
| " | ☽'s 2d Limb | 9 | 34 | 34.08 | | | " |
| " | ε Leonis | 9 | 36 | 44.56 | 45.09 | + 0.53 | " |
| " | α Leonis | 9 | 59 | 49.96 | 50.25 | + 0.29 | " |
| Nov. 12 | α Aquilæ | 19 | 42 | 57.81 | 57.82 | + 0.01 | W |
| " | β Aquilæ | 19 | 47 | 26.48 | 26.52 | + 0.04 | " |
| " | $\alpha^2$ Capricorni | 20 | 09 | 09.76 | 09.73 | — 0.03 | " |
| " | ☽'s 1st Limb | 20 | 20 | 53.41 | | | " |
| " | ψ Capricorni | 20 | 36 | 36.55 | 36.55 | 0.00 | " |
| " | η Capricorni | 20 | 55 | 17.11 | 17.29 | + 0.18 | " |
| " | 61′ Cygni | 20 | 59 | 43.59 | 43.59 | 0.00 | " |
| " | ζ Cygni | 21 | 06 | 07.61 | 07.30 | — 0.31 | " |
| " | ε Pegasi | 21 | 36 | 19.72 | 19.51 | — 0.21 | " |
| 13 | η Capricorni | 20 | 55 | 17.01 | 17.28 | + 0.27 | B |
| " | ☽'s 1st Limb | 21 | 13 | 56.43 | | | " |
| " | ζ Capricorni | 21 | 17 | 31.36 | 31.38 | + 0.02 | " |
| " | γ Capricorni | 21 | 31 | 13.11 | 13.05 | — 0.06 | " |
| " | α Aquarii | 21 | 57 | 34.15 | 33.91 | — 0.24 | " |
| 16 | β Aquarii | 21 | 23 | 07.87 | 07.69 | — 0.18 | W |
| " | ε Pegasi | 21 | 36 | 19.49 | 19.46 | — 0.03 | " |
| " | Fomalhaut | 22 | 48 | 48.49 | 48.25 | — 0.24 | " |
| " | α Pegasi | 22 | 56 | 48.07 | 47.89 | — 0.18 | " |
| " | $\varkappa^1$ Piscium | 23 | 18 | 44.35 | 44.33 | — 0.02 | " |
| " | ι Piscium | 23 | 31 | 43.79 | 43.67 | — 0.12 | " |
| " | ☽'s 1st Limb | 23 | 47 | 28.27 | | | " |
| " | ω Piscium | 23 | 51 | 06.55 | 06.32 | — 0.23 | " |
| " | α Andromedæ | 0 | 00 | 07.96 | 08.11 | + 0.15 | " |
| " | *d* Piscium | 0 | 12 | 22.59 | 22.83 | + 0.24 | " |
| 18 | α Andromedæ | 0 | 00 | 08.58 | 08.11 | — 0.47 | B |
| " | γ Pegasi | 0 | 05 | 00.85 | 00.79 | — 0.06 | " |
| " | α Cassiopeæ | 0 | 31 | 28.32 | 28.50 | + 0.18 | " |
| " | β Ceti | 0 | 35 | 34.15 | 34.32 | + 0.17 | " |
| " | ☽'s 1st Limb | 1 | 36 | 46.25 | | | " |
| " | β Arietis | 1 | 45 | 50.06 | 49.70 | — 0.36 | " |
| 19 | α Cassiopeæ | 0 | 31 | 28.68 | 28.49 | — 0.19 | W |
| " | ϑ Ceti | 1 | 16 | 02.90 | 02.81 | — 0.09 | " |
| " | β Arietis | 1 | 45 | 49.61 | 49.70 | + 0.09 | " |
| " | $\vartheta^1$ Arietis | 2 | 09 | 14.91 | 15.31 | + 0.40 | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, Nov. 19 | ☽'s 1st Limb | 2 | 37 | 40.99 | | | W |
| " | ε Arietis | 2 | 50 | 05.22 | 05.60 | + 0.38 | " |
| " | α Ceti | 2 | 53 | 56.23 | 56.48 | + 0.25 | " |
| " | δ Arietis | 3 | 02 | 30.14 | 30.43 | + 0.29 | " |
| 20 | α Andromedæ | 0 | 00 | 08.07 | 08.07 | 0.00 | " |
| " | α Cassiopeæ | 0 | 31 | 28.45 | 28.45 | 0.00 | " |
| " | ☽'s 1st Limb | 3 | 43 | 40.76 | | | " |
| 21 | A¹ Tauri | 3 | 55 | 16.14 | 15.85 | — 0.29 | " |
| " | υ¹ Tauri | 4 | 16 | 45.58 | 45.38 | — 0.20 | " |
| " | ☽'s 2d Limb | 4 | 56 | 14.76 | | | " |
| " | β Tauri | 5 | 16 | 12.00 | 12.23 | + 0.23 | " |
| " | l Aurigæ | 5 | 28 | 23.78 | 23.02 | — 0.76 | " |
| 22 | A¹ Tauri | 3 | 55 | 15.27 | 15.86 | + 0.59 | B |
| " | υ¹ Tauri | 4 | 16 | 45.61 | 45.39 | — 0.22 | " |
| " | α Tauri | 4 | 26 | 46.13 | 46.00 | — 0.13 | " |
| " | β Tauri | 5 | 16 | 11.94 | 12.25 | + 0.31 | " |
| " | κ Aurigæ | 6 | 05 | 12.58 | 12.25 | — 0.33 | " |
| " | ☽'s 2d Limb | 6 | 08 | 08.44 | | | " |
| " | μ Geminorum | 6 | 13 | 18.11 | 17.85 | — 0.26 | " |
| " | ε Geminorum | 6 | 35 | 06.69 | 06.33 | — 0.36 | " |
| 25 | ☽'s 2d Limb | 9 | 14 | 40.57 | | | " |
| " | λ Leonis | 9 | 22 | 35.04 | 35.42 | + 0.38 | " |
| " | ο Leonis | 9 | 32 | 36.78 | 36.81 | + 0.03 | " |
| " | ε Leonis | 9 | 36 | 46.02 | 46.04 | + 0.02 | " |
| " | γ Leonis | 10 | 11 | 08.56 | 08.58 | + 0.02 | " |
| 28 | χ Leonis | 10 | 56 | 45.60 | 45.57 | — 0.03 | " |
| " | σ Leonis | 11 | 12 | 52.70 | 52.72 | + 0.02 | " |
| " | ☽'s 2d Limb | 11 | 38 | 38.00 | | | " |
| Dec. 10 | ☽'s 1st Limb | 20 | 57 | 06.94 | | | W |
| " | Fomalhaut | 22 | 53 | 47.97 | 47.92 | — 0.05 | " |
| " | α Pegasi | 22 | 56 | 47.57 | 47.62 | + 0.05 | " |
| " | α Andromedæ | 0 | 00 | 07.86 | 07.84 | — 0.02 | " |
| " | α Arietis | 1 | 58 | 10.84 | 10.83 | — 0.01 | B |
| 11 | ☽'s 1st Limb | 21 | 48 | 14.07 | | | W |
| " | ζ Pegasi | 22 | 33 | 28.77 | 28.77 | 0.00 | " |
| " | α Aquarii | 21 | 57 | 33.49 | 33.59 | + 0.10 | " |
| " | α Pegasi | 22 | 56 | 47.60 | 47.61 | + 0.01 | " |
| 13 | ζ Pegasi | 22 | 33 | 28.85 | 28.75 | — 0.10 | " |
| " | Fomalhaut | 22 | 48 | 48.00 | 47.88 | — 0.12 | " |
| " | λ Aquarii | 22 | 44 | 15.87 | 15.87 | 0.00 | " |
| " | φ Aquarii | 23 | 06 | 02.33 | 02.26 | — 0.07 | " |
| " | ☽'s 1st Limb | 23 | 27 | 11.47 | | | " |
| " | ω Piscium | 23 | 51 | 06.44 | 06.07 | — 0.37 | " |
| " | α Andromedæ | 0 | 00 | 07.45 | 07.80 | + 0.35 | " |
| " | γ Pegasi | 0 | 05 | 00.48 | 00.56 | + 0.08 | " |
| " | β Ceti | 0 | 35 | 34.03 | 34.09 | + 0.06 | " |
| 14 | ☽'s 1st Limb | 0 | 17 | 25.28 | | | " |

| Date. | Name of Object. | Sidereal Time of Meridian Passage. | | | Seconds of Tabular A. R. | Diff. | Observer's initial. |
|---|---|---|---|---|---|---|---|
| | | h. | m. | s. | s. | s. | |
| 1839, Dec. 14 | α Cassiopeæ | 0 | 31 | 27.99 | 27.99 | 0.00 | W |
| " | β Ceti | 0 | 35 | 34.08 | 34.08 | 0.00 | " |
| " | δ Piscium | 0 | 40 | 23.94 | 23.73 | — 0.21 | " |
| 17 | α Aquarii | 21 | 57 | 33.68 | 33.54 | — 0.14 | " |
| " | Fomalhaut | 22 | 48 | 48.14 | 47.83 | — 0.31 | " |
| " | α Pegasi | 22 | 56 | 47.65 | 47.54 | — 0.11 | " |
| " | γ Pegasi | 0 | 05 | 00.56 | 00.52 | — 0.04 | " |
| " | β Ceti | 0 | 35 | 33.80 | 34.05 | + 0.25 | " |
| " | α Arietis | 1 | 58 | 10.86 | 10.79 | — 0.07 | " |
| " | γ Ceti | 2 | 35 | 02.01 | 02.30 | + 0.29 | " |
| " | ν Arietis | 2 | 29 | 45.69 | 45.28 | — 0.41 | " |
| " | π Arietis | 2 | 40 | 23.83 | 23.63 | — 0.20 | " |
| " | ☽ 's 1st Limb | 3 | 08 | 18.45 | | | " |
| " | g Arietis | 3 | 14 | 53.56 | 53.43 | — 0.13 | " |
| " | η Tauri | 3 | 38 | 00.18 | 00.41 | + 0.23 | " |
| 18 | β Ceti | 0 | 35 | 34.01 | 34.04 | + 0.03 | " |
| " | α Arietis | 1 | 58 | 10.66 | 10.78 | + 0.12 | " |
| " | γ Ceti | 2 | 35 | 01.84 | 02.30 | + 0.46 | " |
| " | α Ceti | 2 | 53 | 56.57 | 56.54 | — 0.03 | " |
| " | g Arietis | 3 | 14 | 53.88 | 53.44 | — 0.44 | " |
| " | η Tauri | 3 | 38 | 00.21 | 00.41 | + 0.21 | " |
| " | $\gamma^1$ Eridani | 3 | 50 | 35.83 | 35.51 | — 0.32 | " |
| " | ☽ 's 1st Limb | 4 | 15 | 17.65 | | | " |
| " | α Tauri | 4 | 26 | 46.29 | 46.28 | — 0.01 | " |
| 20 | α Tauri | 4 | 26 | 46.80 | 46.29 | — 0.51 | " |
| " | Rigel | 5 | 06 | 52.84 | 52.67 | — 0.17 | " |
| " | β Tauri | 5 | 16 | 12.26 | 12.71 | + 0.45 | " |
| " | δ Orionis | 5 | 23 | 51.45 | 51.76 | — 0.31 | " |
| " | ε Orionis | 5 | 28 | 07.43 | 07.44 | + 0.01 | " |
| " | c Tauri | 5 | 43 | 17.83 | 18.18 | + 0.35 | " |
| " | α Orionis | 5 | 46 | 32.25 | 32.32 | + 0.07 | " |
| " | ϰ Aurigæ | 6 | 05 | 12.60 | 12.87 | + 0.27 | " |
| " | ☽ 's 2d Limb | 6 | 39 | 05.38 | | | " |
| " | τ Geminorum | 7 | 00 | 58.39 | 58.85 | + 0.46 | " |
| " | δ Geminorum | 7 | 10 | 35.33 | 35.55 | + 0.22 | " |
| 25 | ☽ 's 2d Limb | 11 | 25 | 13.18 | | | B |
| " | β Virginis | 11 | 42 | 22.38 | 22.38 | 0.00 | " |
| " | η Virginis | 12 | 11 | 43.71 | 43.74 | + 0.03 | " |
| " | q Virginis | 12 | 25 | 31.59 | 31.68 | + 0.09 | " |